SITE WORK PLANS FOR

JACK'S RESTAURANT

9155 PARK MEADOWS DRIVE LOT 1, PARK MEADOWS FILING 2 THE CITY OF LONE TREE DOUGLAS COUNTY, COLORADO

CIVIL ENGINEER DEVELOPMENT ENGINEERING CONSULTANTS, LLC 5300 TOWN & COUNTRY BOULEVARD, SUITE 150

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OWNER

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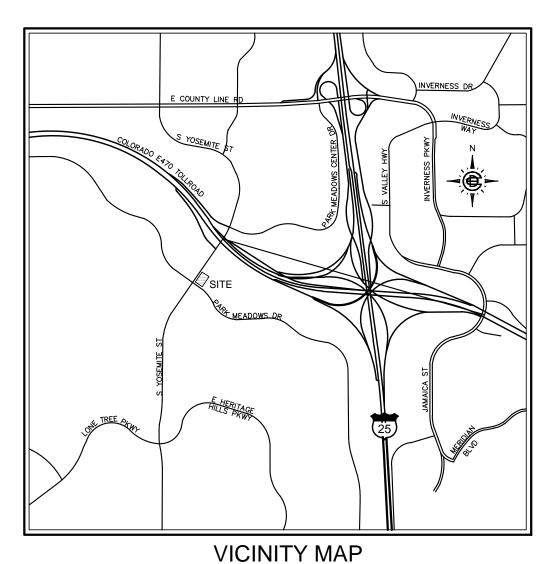
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 $1' = \pm 2000'$

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HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE

CONTROL (GESC) CRITERIA MANUAL OF DOUGLAS COUNTY AS AMENDED.

WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT

CITY OF LONE TREE GENERAL NOTES

- 1. THE PROPERTY DESCRIBED HEREIN IS SUBJECT TO ALL APPLICABLE REQUIREMENTS OF THE LONE TREE ZONING CODE AND DESIGN STANDARDS, INCLUDING BUT NOT LIMITED TO, PROPERTY MAINTENANCE, LIGHTING, PARKING, SIGNAGE, LANDSCAPING AND OUTDOOR STORAGE, EXCEPT AS MAY OTHERWISE BE ADDRESSED IN AN APPROVED PLANNED DEVELOPMENT PLAN, SUB-AREA PLAN, OR OTHER APPLICABLE PLAN OR AGREEMENT APPROVED BY THE CITY.
- 2. THE APPLICANT ASSUMES RESPONSIBILITY TO ENSURE THE PROJECT IS COMPLETED IN ACCORDANCE WITH THE APPROVED SIP AND ANY ASSOCIATED MATERIALS SAMPLE BOARDS AND FURTHER ASSUMES THE RISK ASSOCIATED WITH ANY CHANGES OR OMISSIONS MADE WITHOUT PRIOR CITY APPROVAL. MODIFICATIONS TO STRUCTURES OR SITES MAY REQUIRE AN AMENDMENT TO THE SIP AS DETERMINED BY THE CITY'S COMMUNITY DEVELOPMENT DIRECTOR, PER SEC. 16-27-180. UNAUTHORIZED CHANGES OR OMISSIONS MADE WITHOUT PRIOR CITY APPROVAL CORRECTIVE ACTIONS, DELAY OF PERMITS OR CITATIONS FOR ZONING VIOLATIONS WITH ASSOCIATED FINES AND LEGAL MEASURES. BUILDING PLANS SHALL CONFORM TO THE APPROVED SIP.
- 3. WITHIN SITE TRIANGLES, AS SHOWN, LIMITED LANDSCAPING SHALL BE ALLOWED WITH NO SOLID STRUCTURES PERMITTED AS STATED IN THE CITY OF LONE TREE'S LANDSCAPE DESIGN GUIDELINES AND TANDARDS FOR LANDSCAPING. LANDSCAPING WITHIN THE SIGHT TRIANGLE SHALL BE MAINTAINED BY THE PROPERTY OWNER OR APPROPRIATE ASSOCIATION OR DISTRICT, AS MAY BE IDENTIFIED IN MAINTENANCE AGREEMENTS RECORDED WITH THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE.
- 4. THE OWNER IS RESPONSIBLE FOR THE INSTALLATION OF ALL ROADWAY SIGNAGE, INCLUDING "NO PARKING/FIRE LANE"SIGNAGE, AS REQUIRED BY THE CITY PUBLIC WORKS DEPARTMENT AND/OR THE FIRE DISTRICT. SUCH SIGNAGE SHALL BE MAINTAINED BY THE PROPERTY OWNER OR APPROPRIATE ASSOCIATION OR DISTRICT, AS MAY BE IDENTIFIED IN MAINTENANCE AGREEMENTS RECORDED WITH THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE.
- 5. SITE LANDSCAPING, SITE AMENITIES AND FURNISHINGS, AND ALL SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, SIDEWALKS AND PARKING AREAS SHALL BE MAINTAINED IN A STATE OF GOOD REPAIR CONSISTENT WITH THE APPROVED SIP AND THE LONE TREE MUNICIPAL CODE AND DESIGN GUIDELINES AND STANDARDS. SUCH MAINTENANCE SHALL INCLUDE THE REGULAR MAINTENANCE OF PET WASTE STATIONS (WHEN PRESENT), TO INCLUDE WASTE COLLECTION AND WASTE BAG REPLACEMENT. LANDSCAPE PLANTINGS MUST BE ALIVE AND ALL IRRIGATION MUST BE FUNCTIONAL. ALL MAINTENANCE OBLIGATIONS SHALL BE COMPLETED BY THE PROPERTY OWNER OR APPROPRIATE ASSOCIATION OR DISTRICT, AS MAY BE IDENTIFIED IN MAINTENANCE AGREEMENTS RECORDED WITH THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE.
- 6. THE CITY OF LONE TREE REQUIRES THAT MAINTENANCE ACCESS BE PROVIDED TO ALL STORM DRAINAGE FACILITIES TO ASSURE CONTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL DRAINAGE FACILITIES, INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES AND DETENTION BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY THE SITE IMPROVEMENT PLAN IMPROVEMENTS AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE CITY OF LONE TREE SHALL HAVE THE RIGHT TO ENTER SAID LAND FOR THE PURPOSES OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER OR THE RESPONSIBLE MAINTENANCE AUTHORITY.
- THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE CITY OF LONE TREE FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE LONE TREE GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEES DUE TO UNFORSEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITTEES, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

CITY OF LONE TREE

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR GRADING IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE FOR REVIEW ONLY AND NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMITTING. THEY HAVE BEEN PREPARED BY OR UNDER THE SUPERVISION OF DANIEL B.

STEWART, P.E. P.E. NO.: 107767 DATE: 10/11/23

ISSUE DATE | DEC FILE NO 10/11/23 105616 CITY FILE NO. SHEET NO. C0.0

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN

PROJECT GENERAL NOTES

- 1. ALL MATERIALS, CONSTRUCTION METHODS, AND TESTING FOR PROPOSED IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S CURRENT REGULATIONS, SPECIFICATIONS, AND DETAILS. DEVIATIONS FOR PUBLIC IMPROVEMENTS WILL NOT BE ALLOWED UNLESS CLEARLY SPECIFIED IN WRITING FROM THE GOVERNING AUTHORITY. DEVIATIONS ON PRIVATE IMPROVEMENTS SHALL BE ALLOWED ONLY AS NOTED ON THESE PLANS, BUT IN NO WAY SHALL VIOLATE LOCAL, STATE, OR FEDERAL LAW.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL INFORMATION PRESENTED IN THESE PLANS PRIOR TO SUBMISSION OF ANY BID OR CONTRACT DOCUMENT FOR THE SCOPE OF WORK CONTAINED HEREIN. ALL BID AND/OR CONTRACT DOCUMENTS SHALL REFERENCE THE PLAN AND/OR SEAL DATE PROVIDED ON EACH SHEET WITHIN THESE PLANS.
- 3. THE INFORMATION AND DESIGN SHOWN ON THESE PLANS HAS BEEN COORDINATED WITH OTHER DESIGN PROFESSIONALS AS NOTED. THE CONTRACTOR IS RESPONSIBLE FOR RECONCILING ALL PLAN SETS (SITE WORK, BUILDING, ROADWAY, PUBLIC UTILITY, ETC.) PRIOR TO CONSTRUCTION OF IMPROVEMENTS. THE OWNER AND DESIGN ENGINEER ASSUME NO RESPONSIBILITY FOR REVISIONS MADE TO OTHER PLAN SETS AND NOT SHARED WITH THE DESIGN ENGINEER.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING ALL EXISTING FEATURES OF THE SITE AND INCLUDING ANY COSTS ASSOCIATED WITH CLEARING, HAULING, MATERIAL STORAGE, CONSTRUCTION UTILITIES, LABOR, ETC. IN THE CONTRACT AMOUNT.
- 5. ALL EXISTING IMPROVEMENTS, GRADES, FEATURES, CONDITIONS, ETC. SHOWN ON THESE PLANS HAVE BEEN SHOWN BASED ON INFORMATION PROVIDED BY OTHERS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING FACILITIES, GRADES, CONDITIONS, UTILITIES, ETC. AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE DESIGN ENGINEER/ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES. THE OWNER AND DESIGN ENGINEER/ARCHITECT ASSUME NO RESPONSIBILITY FOR INACCURACY OR OMISSION OF EXISTING FACILITIES, GRADES, CONDITIONS, UTILITIES, ETC.
- 6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY CONDITIONS OF THE SITE DURING ALL CONSTRUCTION ACTIVITIES, WHETHER WORK IS UNDERWAY OR NOT. STORED MATERIALS, EQUIPMENT, AND CONSTRUCTION ACTIVITIES SHALL BE MONITORED AT ALL TIMES AND ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT THE SAFETY, HEALTH, AND WELFARE OF THE GENERAL PUBLIC. ALL-WEATHER ACCESS PATHS SHALL BE PROVIDED AS REQUIRED BY ALL GOVERNING EMERGENCY SERVICES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ALL REQUIRED DOCUMENTATION (NOTICES OF INTENT, SITE NOTICE, INSPECTION REPORTS, ETC.) PREPARED. A COPY OF ALL REQUIRED DOCUMENTS SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT IN CONFORMANCE WITH ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PERMITS, CONTRACTOR LICENSES AND/OR REGISTRATIONS, AND DOCUMENTATION FROM THE GOVERNING AUTHORITIES FOR ALL WORK REQUIRED BY THESE PLANS. A COPY OF ALL APPROVED PLANS, PERMITS, LICENSES, REGISTRATIONS, AND DOCUMENTATION SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES THROUGHOUT CONSTRUCTION. ANY REQUIRED FEES, BONDS, DEPOSITS, ETC. REQUIRED TO PERFORM THE WORK SHALL BE PROVIDED BY THE CONTRACTOR AND COSTS ASSOCIATED WITH SUCH SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- ALL MATERIALS TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY CONTRACTED DIRECTLY WITH THE OWNER/DEVELOPER. THE CONTRACTOR SHALL COOPERATE WITH ALL TESTING AGENCIES AND MAKE ALL REASONABLE EFFORTS TO ASSIST THE REPRESENTATIVES IN OBTAINING REQUIRED SAMPLES. ANY TESTS INDICATING MATERIALS FAILING TO MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. ALL COSTS OF RE-TESTING SHALL BE REIMBURSED BY THE CONTRACTOR.
- 10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SCHEDULING ALL INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES AND/OR PRIVATE CONTRACT. ALL COSTS ASSOCIATED WITH INSPECTIONS BY THE GOVERNING AUTHORITIES SHALL BE PAID BY THE CONTRACTOR.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD SURVEY AND STAKING REQUIRED TO PERFORM THE WORK IN THESE PLANS. BENCHMARKS HAVE BEEN PROVIDED IN THE PLANS FOR VERTICAL DATUM REFERENCE. THE CONTRACTOR'S SURVEYOR(S) SHALL BE RESPONSIBLE FOR VERIFYING ALL BENCHMARK ELEVATIONS AND NOTIFYING THE DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK BEING
- 12. ALL MATERIALS AND EQUIPMENT USED AND/OR INSTALLED ON THIS PROJECT SHALL BE NEW, CLEAN, AND UNUSED. MATERIALS SHALL NOT BE USED AFTER THE MANUFACTURER'S RECOMMENDED EXPIRATION DATE. ALL MATERIALS SHALL BE STORED AND/OR USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, UNLESS OTHERWISE NOTED ON THESE PLANS. IN NO CASE SHALL WORK BE DONE THAT VOIDS OR REDUCES ANY WARRANTY PROVIDED BY THE MANUFACTURER. ANY MATERIAL OR EQUIPMENT DAMAGED, STOLEN, OR LOST SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 13. ALL MANUFACTURED PRODUCTS USED DURING CONSTRUCTION AND/OR SHOP DRAWINGS PROVIDED BY MANUFACTURERS SHALL BE SUBMITTED TO THE OWNER AND DESIGN ENGINEER/ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO USE. ALL NATURAL MATERIALS (STONE, PLANTINGS, MULCH, ETC.) SHALL BE SUBMITTED TO THE OWNER AND DESIGN ENGINEER/ARCHITECT FOR APPROVAL OF TYPE, COLOR, AESTHETIC, ETC. PRIOR TO INSTALLATION. PRODUCT SAMPLES MAY BE REQUESTED AND SHALL BE PROVIDED BY THE CONTRACTOR.
- 14. THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY LOCATION ORGANIZATION (ONE-CALL SYSTEM) A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY WORK ON THE PROJECT SITE. ALL EXISTING UTILITIES IN THE AREA OF ANY WORK, WHETHER NOTED OR NOT, SHALL BE FIELD LOCATED AND PROTECTED THROUGHOUT ALL CONSTRUCTION ACTIVITIES. ACCESS TO ALL PUBLIC UTILITY SURFACE APPURTENANCES (METERS, VALVES, VAULTS, MANHOLES, CABINETS, HYDRANTS, ETC.) NOT BEING MODIFIED BY THIS WORK SHALL BE MAINTAINED AND AVAILABLE TO THOSE UTILITY COMPANIES AT ALL TIMES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO A CONDITION ACCEPTABLE TO THE APPLICABLE UTILITY COMPANY.
- 15. ALL EXISTING IMPROVEMENTS NOT BE REMOVED OR MODIFIED SHALL BE PROTECTED AT ALL TIMES. ANY DAMAGE TO EXISTING SIDEWALKS, STREETS, DRIVEWAYS, TREES, WALLS, FENCES, ETC. DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AS GOOD OR BETTER THAN EXISTED PRIOR TO CONSTRUCTION.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS. THE PLAN SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE WORK IS BEING PERFORMED. REFLECTIVE BARRICADES OR OTHER WARNING DEVICES EFFECTIVE IN DAYLIGHT OR NIGHT SHALL BE PLACED AROUND ALL OPEN TRENCHES. TRENCHES NOT BEING ACTIVELY WORKED IN SHOULD BE COVERED OR BARRICADED TO PROTECT ALL PERSONS AND VEHICLES IN THE AREA.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL TRAFFIC CONTROL REQUIREMENTS OF THE GOVERNING AUTHORITY. ANY PLANS REQUIRED IN ADDITION TO THOSE PROVIDED IN THIS PLAN SET WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 18. FULL ALL-WEATHER ACCESS FOR PERSONAL VEHICLES SHALL BE PROVIDED TO ALL EXISTING ACCESS POINTS ON ADJACENT PROPERTIES AT ALL TIMES, UNLESS OTHERWISE ALLOWED IN WRITING BY THE PROPERTY OWNER(S).
- 19. ALL AREAS WITHIN THE PROJECT SITE, ADJACENT PROPERTIES, AND ADJACENT PUBLIC RIGHT-OF-WAY USED BY CONSTRUCTION TRAFFIC SHALL BE MAINTAINED BY THE CONTRACTOR, INCLUDING KEEPING THE AREA(S) FREE OF DIRT, MUD, OILS, TRASH, OR OTHER CONSTRUCTION RELATED MATERIALS. ANY DAMAGE TO PAVING. LANDSCAPING, SIGNAGE, FENCING, ETC. SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE UPON COMPLETION OF WORK ACTIVITIES TO A CONDITION THE SAME OR BETTER AS EXISTED PRIOR TO CONSTRUCTION COMMENCING.
- 20. ALL CONSTRUCTION EQUIPMENT/VEHICLES. MATERIAL STORAGE AND/OR STAGING AREAS SHALL BE LOCATED WITHIN THE PROJECT SITE AND IN COMPLIANCE WITH ALL CONTRACT DOCUMENTS. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON ADJACENT PROPERTIES UNLESS APPROVAL IS GIVEN IN WRITING BY THAT PROPERTY OWNER.
- 21. THE CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY PROVIDERS TO PROVIDE ANY AND ALL UTILITIES REQUIRED FOR CONSTRUCTION OF THE PROJECT. COSTS ASSOCIATED WITH PROVIDING AND REMOVING TEMPORARY SERVICES SHALL BE INCLUDED IN THE CONTRACT AMOUNT. USE OF THE PERMANENT UTILITY SERVICES IS PROHIBITED WITHOUT WRITTEN APPROVAL BY THE OWNER.
- 22. THE CONTRACTOR SHALL COORDINATE WITH ANY ADJACENT CONTRACTORS WORKING ON OTHER PROJECTS ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE DESIGN ENGINEER OF ANY CONFLICTS OR DISPUTES THAT ARISE.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PROJECT SITE AS CLEAN AND FREE OF LOOSE TRASH, DEBRIS, AND SOIL MIGRATION AS IS REASONABLY PRACTICAL. ANY MATERIALS OR EQUIPMENT REPORTED TO CAUSE A NUISANCE BY THE GOVERNING AUTHORITY SHALL BE REMOVED IMMEDIATELY. IF, IN THE OPINION OF THE CONTRACTOR, THE NUISANCE IS REQUIRED TO COMPLETE THE PROJECT SCOPE HE SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND DESIGN ENGINEER IMMEDIATELY.

- 24. THE CONTRACTOR SHALL CLEAN THE SITE OF ALL DIRT, DEBRIS, TRASH, EXCESS MATERIAL, CONSTRUCTION WASTE CONTAINERS, EQUIPMENT, ETC. UPON COMPLETION OF WORK ACTIVITIES AND PRIOR TO REQUESTING FULL PAYMENT OF THE CONTRACT AMOUNT OR OPENING THE SITE TO THE GENERAL PUBLIC. ALL EROSION CONTROL MEASURES SHALL BE REMOVED UPON FULL STABILIZATION OF THE DISTURBED AREAS.
- 25. AT THE OWNER'S DISCRETION, THE CONSTRUCTED IMPROVEMENTS MAY BE REVIEWED BY THE OWNER AND/OR DESIGN ENGINEER. ANY WORK NOTED THAT IS NOT IN CONFORMANCE WITH THESE PLANS IS SUBJECT TO REJECTION OR MODIFICATION. REJECTED IMPROVEMENTS SHALL BE FULLY REMOVED AND IMPROVEMENTS SHALL BE RECONSTRUCTED TO CONFORM TO THE DESIGN SHOWN ON THESE PLANS AT THE CONTRACTOR'S EXPENSE. MODIFICATIONS MAY BE ALLOWED AT THE OWNER'S AND/OR DESIGN ENGINEER'S DISCRETION, AND SHOULD BE COMPLETED AT THE CONTRACTOR'S EXPENSE. ALL REJECTED WORK OR WORK SUBJECT TO MODIFICATION SHALL BE COMPLETED AND ACCEPTED PRIOR TO FULL PAYMENT OF THE CONTRACT AMOUNT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REMOVAL OF ALL TRASH, CONSTRUCTION EQUIPMENT, WASTE, SPOILS, TEMPORARY FACILITIES, AND EXCESS MATERIALS FROM THE CONSTRUCTION SITE. REMOVAL AND/OR DISPOSAL OF ALL ITEMS SHALL BE DONE IN A LAWFUL MANNER OUTSIDE THE LIMITS OF THE SUBJECT PROPERTY. ALL COSTS FOR TRANSPORT AND DISPOSAL OF REMOVED ITEMS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- 27. THE CONTRACTOR SHALL MAINTAIN A DETAILED RECORD OF ALL CHANGES, MODIFICATIONS, AND EXISTING IMPROVEMENTS THAT DEVIATE FROM THE DESIGN SHOWN ON THESE PLANS. THE RECORDS SHALL BE PROVIDED TO THE DESIGN ENGINEER UPON COMPLETION OF WORK AND PRIOR TO REQUESTING FULL PAYMENT OF THE CONTRACT AMOUNT.

CITY OF LONE TREE GENERAL NOTES

- 1. THE CITY OF LONE TREE ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE CITY OF LONE TREE SUBDIVISION RESOLUTION OR APPROVED VARIANCES TO THOSE REGULATIONS. THE CITY OF LONE TREE ENGINEER, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.
- 2. ALL ROADWAY CONSTRUCTION SHALL CONFORM TO CURRENT DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF LONE TREE ENGINEERING DIVISION. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- 4. THE CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE PUBLIC WORKS, INSPECTION SECTION, (303) 662-8112. A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION, AND/OR BEFORE RESTARTING CONSTRUCTION AFTER A SHUTDOWN OF MORE THAN 10 DAYS.
- 5. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION, CONTACT: UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT (800) 922-1987 OR 811.
- 6. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY (SIGNED BY BOTH DESIGN ENGINEER AND CITY OF LONE TREE) OF THE CONSTRUCTION PLANS AND GESC REPORT AND PLAN, AND ONE (1) COPY OF THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AT THE JOB SITE AT ALL TIMES.
- 7. NO PROPOSED STREET CUTS TO EXISTING PAVEMENTS FOR UTILITIES, STORM SEWER, OR OTHER PURPOSES ARE PROPOSED.
- 8. A ROW/CONSTRUCTION PERMIT MUST BE OBTAINED BEFORE ANY WORK WITHIN EXISTING OR PROPOSED PUBLIC ROW. THE PERMIT APPLICATION MUST BE SUBMITTED TO THE CITY OF LONE TREE ENGINEER FOR REVIEW/PROCESSING A MINIMUM OF 7 DAYS PRIOR TO REQUESTED START FOR THE WORK IN THE ROW.
- 9. A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED TO THE CITY OF LONE TREE ENGINEER FOR ACCEPTANCE WITH THE PERMIT APPLICATION. AN EXCAVATION OR PUBLIC IMPROVEMENTS CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN APPROVED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
- 10. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF CITY OF LONE TREE ACCEPTANCE/APPROVAL. IF APPLICABLE CONSTRUCTION PERMITS HAVE NOT BEEN OBTAINED, AND CONSTRUCTION STARTED WITHIN THAT TIME, THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE CITY OF LONE TREE.
- 11. CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE ENGINEER INSPECTOR WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY WHICH WILL BE CONVEYED TO THE CITY, URBAN DRAINAGE AND FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATERS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES), FAILURE TO NOTIFY ENGINEERING INSPECTOR TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITIES/INFRASTRUCTURE BY CITY AND/OR URBAN DRAINAGE.

LEGEND	EXISTING	PROPOSED
PROPERTY LINE		
BUILDING	£	
FINISH FLOOR ELEVATION	FF= 100.00	FF= 100.00
SPOT ELEVATION	∘100.00 DESC	10.00
CURB		
RETAINING WALL		
CONTOUR LINE	583	83
STORM DRAIN		
STORM DRAIN MANHOLE/JUNCTION BOX	SDMH	SDMH
CURB INLET	CI	<i>CI</i>
GRATE INLET	⊞ GI	□ GI
WATER LINE	WATER	WATER
FIRE HYDRANT		● FH
WATER METER BOX	W	\otimes
WATER VALVE	\bowtie	H
BACKFLOW PREVENTOR	BP	BP
DETECTOR CHECK	DC	DC
IRRIGATION CONTROL VALVE	©V	
SANITARY SEWER LINE	EX <u>SS </u>	
SANITARY SEWER MANHOLE	©	● SSMH
CLEANOUT	<u>CO</u>	<u>CO</u> _
LIGHT POLE		
POWER POLE	✓ PP	● PP
ELECTRIC TRANSFORMER	T	T
ELECTRIC SWITCHGEAR	S	S
UNDERGROUND UTILITY MARKER	Δ	Δ
UNDERGROUND TELECOMMUNICATIONS LINE	UGT	UGT
UNDERGROUND ELECTRIC LINE	——UGE——	UGE
UNDERGROUND GAS LINE	——GAS——	—— GAS——
OVERHEAD LINE	OHL	OHL
OVERHEAD TELECOMMUNICATIONS LINE	——ОНТ——	OHT
GAS METER	[GM]	<u>GM</u>
ACCESSIBLE PARKING	&.	Ġ.
VAN ACCESSIBLE PARKING	(V)	(
SIGN	0	•
TREE	•	\bigcirc

APPROX APPROXIMATELY ASPHALT BACK OF CURB BACK TO BACK BARRIER FREE RAMP BENCHMARK BY OTHERS BACK OF WALL CATV CABLE TV CUBIC FEET PER SECOND CFS CURB INLET CENTER LINE CORRUGATED METAL PIPE CLEANOUT CONCRETE PAVEMENT DOUBLE CHECK DETECTOR CHECK DOUBLE CLEANOU DRAINAGE EASEMENT DROP INLET DIAMETER DUCTILE IRON PIPE **DOCUMENT** DOMESTIC WATER ELECTRIC CABINE EXPANSION JOINT FI FVATION ELECTRIC MARKER ELECTRIC MANHOL ELECTRIC PEDESTAL EASEMENT ELECTRIC VAULT **EXISTING** FACE OF CURR FACE TO FACE FINISHED FLOOF FIRE HYDRANT FORCE MAIN FIBER OPTIC FINISHED PAD FEET PER SECOND FLOW LINE FFFT/FOOT FACÉ OF WALL GRATE INLET GAS VALVE HIGH DENSITY POLYETHYLENE HEADWALL HOT MIX ASPHALTIC CONCRETE HORIZ HORIZONTAI HIGH POINT HEATING, VENTILATION AND AIR CONDITIONING IRRIGATION JUNCTION BOX LINEAL FEET LOW POINT MANHOLF NOT APPLICABLE NATURAL GROUND POINT OF CURVATURE POINT OF COMPOUND CURVATURE POINT OF INTERSECTION POST INDICATOR VALVE PROPERTY LINE POWER POLE POINT OF REVERSE CURVATURE PROPOSED PEDESTRIAN SIGNAL POLE POINT OF TANGENCY POLYVINYL CHLORIDE PAVEMENT OCEW ON CENTER EACH WAY OVERHEAD ELECTRIC RCB REINFORCED CONCRETE BOX RECESSED CURB INLET REINFORCED CONCRETE PIPE REINFORCED CONCRETE CYLINDRICAL PIPE REINF REINFORCED RIDGE LINE ROW RIGHT OF WAY SEP INST SEPARATE INSTRUMENT STORM DRAIN STORM DRAIN MANHOLE SANITARY SEWER SANITARY SEWER EASEMENT SANITARY SEWER MANHOLE STA STATION SQUARE YARD TOP OF CURB TELECOMMUNICATIONS MARKER TELECOMMUNICATIONS PEDESTAL TELECOMMUNICATIONS VAULT TRENCH DRAIN TELECOMMUNICATIONS MANHOLE TOB TOP OF BANK TOF OF SLOPE TOP OF PAVEMENT TRAFFIC SIGNAL CABINET TRAFFIC SIGNAL POLE TRAFFIC SIGNAL VAULT UTILITY CABINET UTILITY EASEMENT UTILITY VAULT VITRIFIED CLAY PIPE WATER EASEMENT WATER METER WATER MANHOLE WATER SERVICE WATER WATER VALVE WASTEWATER

ABBREVIATIONS

ASPHALT PAVEMENT

AREA DRAIN

CITY OF LONE TREE THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR

GRADING IMPROVEMENTS ONLY

ENGINEERING DIVISION ACCEPTANCE BLOCK

GENERAL NOTES & LEGEND

JACK'S RESTAURANT

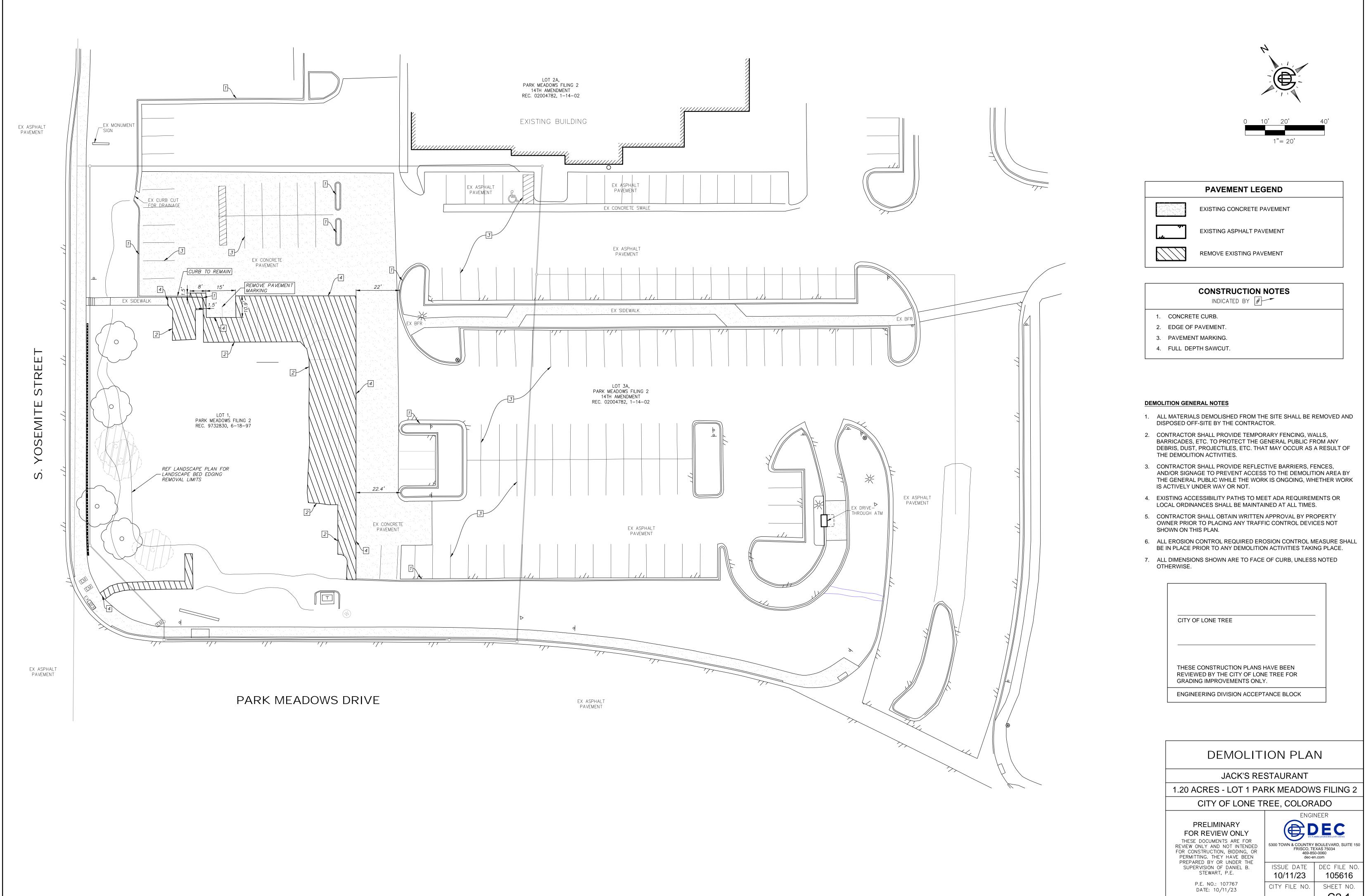
1.20 ACRES - LOT 1 PARK MEADOWS FILING 2 CITY OF LONE TREE, COLORADO

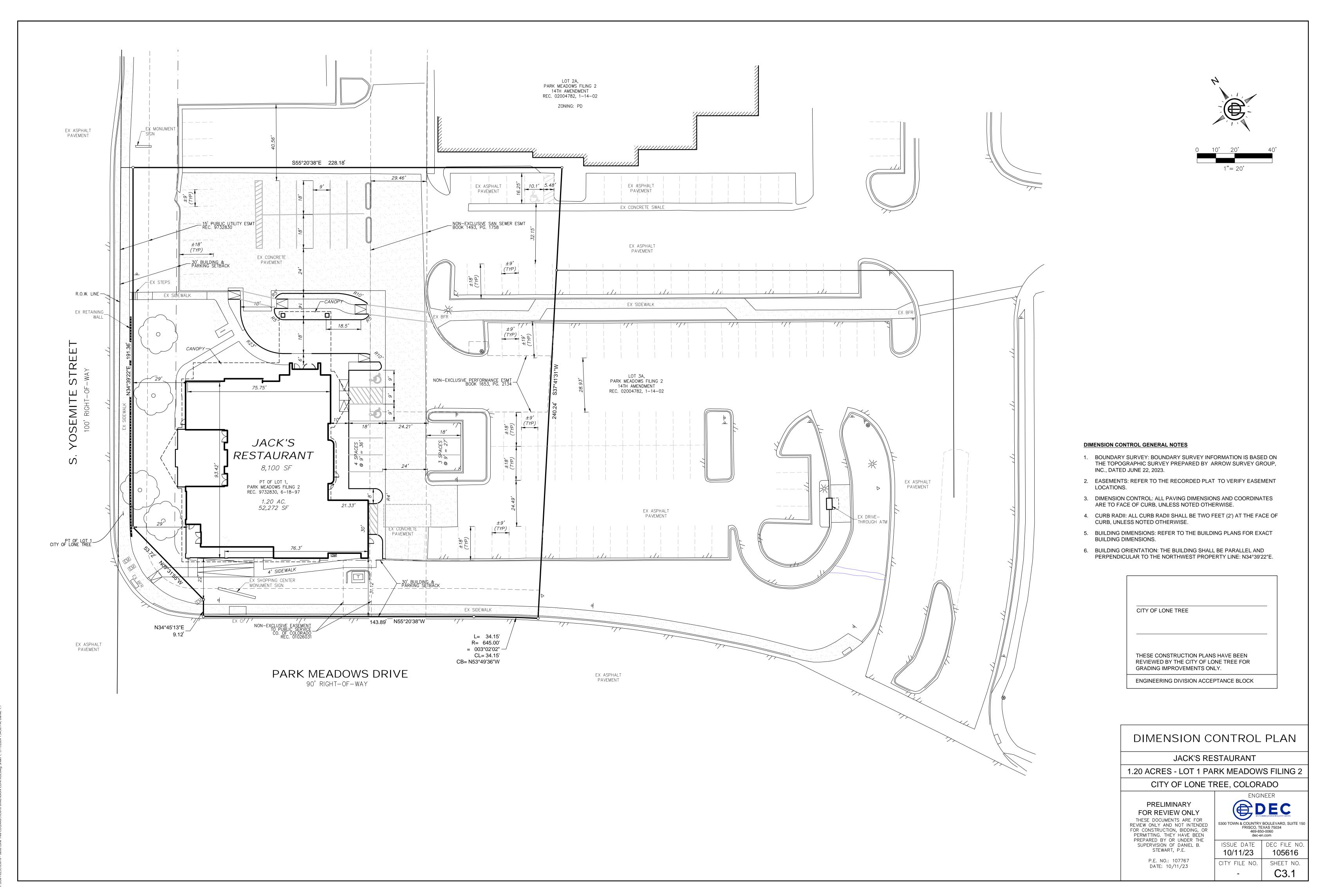
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ENGINEER 00 TOWN & COUNTRY BOULEVARD, SUITE 15 FRISCO, TEXAS 75034 dec-en.com ISSUE DATE | DEC FILE NO.

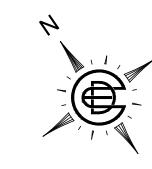
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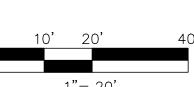
10/11/23 P.E. NO.: 107767 SHEET NO. CITY FILE NO. DATE: 10/11/23





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CERTIFICATION:

THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) REPORT INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA MANUAL, AS AMENDED.

DESIGNER'S SEAL & SIGNATURE

SLP JOP II, LLC HEREBY CERTIFIES THAT THE GRADING, EROSION AND SEDIMENT CONTROL FACILITIES FOR JACK'S RESTAURANT SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS REPORT. I UNDERSTAND THAT THE CITY OF LONE TREE DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE GRADING, EROSION AND SEDIMENT CONTROL **FACILITIES**

DESIGNED AND/OR CERTIFIED BY MY ENGINEER AND THAT THE CITY OF LONE TREE REVIEWS GESC PLANS; BUT CANNOT, ON BEHALF OF JACK'S RESTAURANT, GUARANTEE THAT FINAL REVIEW WILL ABSOLVE SLP JOP II, LLC AND/OR THEIR SUCCESSORS AND/OR ASSIGNS OF FUTURE LIABILITY FOR IMPROPER DESIGN.

SLP JOP II, LLC

AUTHORIZED SIGNATURE

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE CITY OF LONE TREE FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE CITY OF LONE TREE GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEE(S) DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED GESC PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS GESC PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITTEE(S) UNTIL SUCH TIME AS THE GESC PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.

CITY OF LONE TREE

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR GRADING IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

- ORDINANCES.
- 3. ALL CONTRACTORS SHALL BE AWARE OF AND ADHERE TO THE PROJECT SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP), THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT, AND/OR ANY APPLICABLE STATE GENERAL PERMITS.
- 4. THIS EROSION CONTROL PLAN DOES NOT CONSTITUTE A SWPPP. REFER TO THE SWPPP DOCUMENT OR SITE NOTICE FOR COMPLETE REQUIREMENTS.
- 5. ALL POTENTIAL POLLUTANTS SHALL BE STORED, HANDLED, ETC. IN A MANNER THAT PREVENTS DISCHARGE FROM THE SITE THROUGH STORM WATER RUNOFF.
- 6. OIL, GREASE, CHEMICAL, AND PETROLEUM PRODUCTS SHALL BE IMMEDIATELY CLEANED IF SPILLED OR LEAKING.
- 7. DUST CONTROL SHALL BE PREVENTED WITH REGULAR WATERING. OIL, PETROLEUM, OR OTHER CHEMICALS ARE PROHIBITED FOR DUST CONTROL.
- 8. ANY DISTURBED AREA WITH NO CONSTRUCTION ACTIVITY FOR FOURTEEN
- ALL VEHICLES AND EQUIPMENT SHALL BE CLEANED AT THE STABILIZED CONSTRUCTION ENTRANCE/EXIT BEFORE LEAVING THE SITE. ALL WASH WATER SHALL BE TREATED OR COLLECTED IN A MANNER TO AVOID POLLUTANTS FROM CONTACTING STORMWATER RUNOFF.
- ANY SOILS AND/OR CONSTRUCTION MATERIALS TRACKED, SPILLED, AND/OR WASHED ONTO ADJACENT PROPERTIES OR RIGHTS-OF-WAY SHALL BE IMMEDIATELY REMOVED AND CLEANED.
- 12. ALL SILT, MATERIAL, AND/OR CONSTRUCTION DEBRIS ACCUMULATED ON OR IN ANY EROSION CONTROL OR STORM WATER CONVEYANCE DEVICE (SILT FENCE, TEMPORARY OR PERMANENT POND, STORM DRAIN INLETS AND PIPES, ETC.) WHICH IMPAIRS THE EFFECTIVENESS OF SUCH DEVICE SHALL BE REMOVED IMMEDIATELY UPON INSPECTION NOTING SUCH IMPAIRMENT.
- 13. A SILT FENCE SHALL BE PLACED COMPLETELY AROUND ANY STOCKPILE PLACED ON SITE.
- DISPOSED OF UPON COMPLETE STABILIZATION OF THE DISTURBED AREA. 16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT AND/OR REPAIR ANY

IMPACT TO ADJACENT PROPERTY AND/OR RIGHT-OF-WAY NOT SHOWN ON THIS

- PLAN AT THEIR EXPENSE. 17. REFER TO THE SWPPP FOR REQUIREMENTS TO MODIFY THIS PLAN TO SHOW FIELD LOCATION OF MATERIAL STORAGE, CONCRETE WASHOUT, EQUIPMENT
- STAGING, ETC. 18. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL REQUIRED INSPECTIONS AND DOCUMENTATION PERFORMED AS DEFINED IN THE SWPPP.
- 19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE STORMWATER POLLUTION PREVENTION REQUIREMENTS FOR ALL REMOTE SITES BEING USED FOR SOIL IMPORT, SOIL EXPORT, AND/OR DISPOSAL.

20. SEE COVER SHEET OF LONE TREE STANDARD NOTES AND DETAILS (SHEET 1 OF

3) FOR LEGEND OF BMP NAMES AND SYMBOLS.

FEMA FLOOD NOTE:

THE DISTURBED AREA SHOWN ON THIS PLAN LIES ENTIRELY WITHIN ZONE X, WHICH LIE OUTSIDE THE 500 YEAR FLOODPLAIN AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM'S FLOOD INSURANCE RATE MAP FOR DOUGLAS COUNTY, COLORADO, MAP NUMBER 08035C0042G, EFFECTIVE MARCH 16, 2016, AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

BENCHMARKS

YOSEMITE STREET APPROXIMATELY 208 FEET NORTHEAST OF NORTHEAST CORNER OF SUBJECT PROPERTY.

MAG NAIL (TAG 31158) IN CONCRETE SIDEWALK AT SOUTHEAST CORNER OF SUBJECT PROPERTY.

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10/11/23 CITY FILE NO.

INITIAL GESC PLAN

JACK'S RESTAURANT

1.20 ACRES - LOT 1 PARK MEADOWS FILING 2

CITY OF LONE TREE, COLORADO

MAG NAIL (TAG 27609) ON EAST CURB OF S.

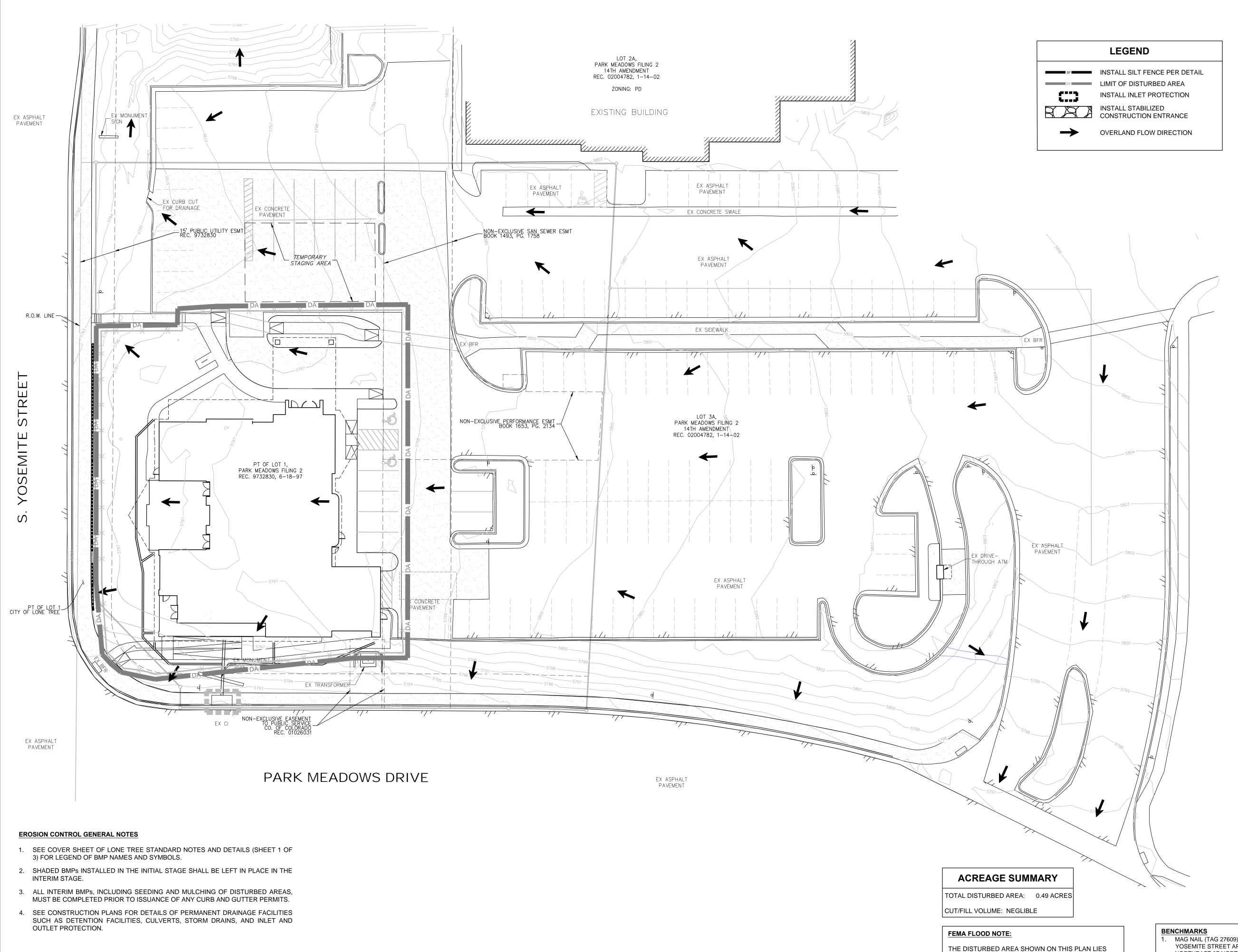
ELEVATION: 5787.87

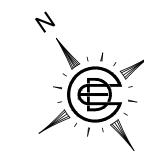
ELEVATION: 5802.07

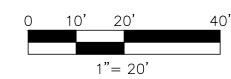
P.E. NO.: 107767 DATE: 10/11/23

PRELIMINARY

ISSUE DATE | DEC FILE NO. 105616 SHEET NO.







CERTIFICATION:

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DESIGNER'S SEAL & SIGNATURE

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CITY OF LONE TREE

DATE

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ENGINEERING DIVISION ACCEPTANCE BLOCK



INTERIM GESC PLAN

JACK'S RESTAURANT

1.20 ACRES - LOT 1 PARK MEADOWS FILING 2 CITY OF LONE TREE, COLORADO

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STEWART, P.E. P.E. NO.: 107767 DATE: 10/11/23

dec-en.com ISSUE DATE DEC FILE NO. 10/11/23 105616 CITY FILE NO. SHEET NO. C4.2

ENGINEER

00 TOWN & COUNTRY BOULEVARD, SUITE 150 FRISCO, TEXAS 75034

MAG NAIL (TAG 27609) ON EAST CURB OF S. YOSEMITE STREET APPROXIMATELY 208 FEET NORTHEAST OF NORTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION: 5787.87

ENTIRELY WITHIN ZONE X, WHICH LIE OUTSIDE THE

500 YEAR FLOODPLAIN AS SHOWN ON THE NATIONAL

FLOOD INSURANCE PROGRAM'S FLOOD INSURANCE

NUMBER 08035C0042G, EFFECTIVE MARCH 16, 2016,

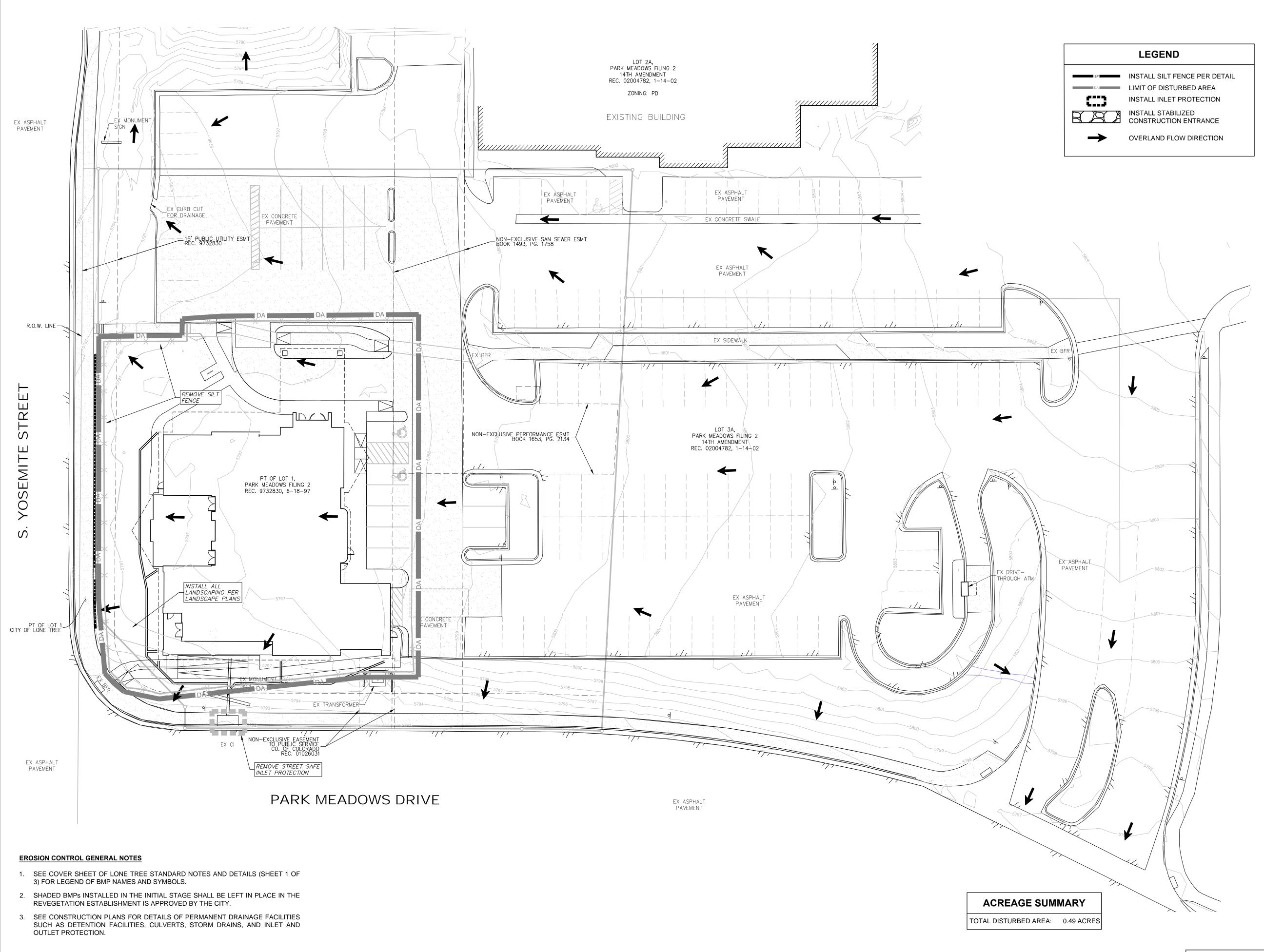
AS PUBLISHED BY THE FEDERAL EMERGENCY

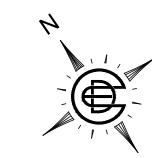
MANAGEMENT AGENCY.

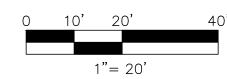
RATE MAP FOR DOUGLAS COUNTY, COLORADO, MAP

MAG NAIL (TAG 31158) IN CONCRETE SIDEWALK AT SOUTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION: 5802.07







CERTIFICATION:

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CITY OF LONE TREE

DATE

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ENGINEERING DIVISION ACCEPTANCE BLOCK



FINAL GESC PLAN

JACK'S RESTAURANT

1.20 ACRES - LOT 1 PARK MEADOWS FILING 2 CITY OF LONE TREE, COLORADO

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STEWART, P.E.

dec-en.com ISSUE DATE DEC FILE NO. 105616 SHEET NO.

ENGINEER

00 TOWN & COUNTRY BOULEVARD, SUITE 150 FRISCO, TEXAS 75034

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ELEVATION: 5787.87

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MAG NAIL (TAG 31158) IN CONCRETE SIDEWALK AT SOUTHEAST CORNER OF SUBJECT PROPERTY.

P.E. NO.: 107767 DATE: 10/11/23

10/11/23 CITY FILE NO.

C4.3

GRADING, EROSION, AND SEDIMENT CONTROL (GESC) GENERAL NOTES

- THE CITY OF LONE TREE ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE CITY OF LONE TREE PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION, HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE CITY OF LONE TREE SUBDIVISION REGULATIONS AND/OR THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. THE CITY OF LONE TREE ENGINEER, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
- THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER.
- THE GESC PLAN SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY THE CITY LONE TREE, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF LONE TREE ENGINEERING DIVISION. THE CITY OF LONE TREE RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND

WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.

- THE PLACEMENT OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN ACCORDANCE WITH THE CITY OF LONE TREE - ACCEPTED GESC PLAN AND THE CITY OF LONE TREE GESC MANUAL.
- ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL BMPs FROM THE CITY OF LONE TREE ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE CITY OF LONE TREE ENGINEERING DIVISION.
- AFTER THE GESC PLAN HAS BEEN ACCEPTED, THE GESC PERMIT APPLIED FOR, FEES AND FISCAL SECURITY SUBMITTED TO THE CITY, AND THE GESC FIELD MANUAL OBTAINED AND REVIEWED, THE CONTRACTOR MAY INSTALL
- THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs INDICATED ON THE ACCEPTED GESC PLAN. THE FIRST BMP TO BE INSTALLED ON THE SITE SHALL BE CONSTRUCTION FENCE, MARKERS, OR OTHER APPROVED MEANS OF DEFINING THE LIMITS OF CONSTRUCTION, INCLUDING CONSTRUCTION LIMITS ADJACENT TO STREAM
- CORRIDORS AND OTHER AREAS TO BE PRESERVED. AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs, THE PERMITTEE SHALL CALL THE CITY OF LONE TREE CONSTRUCTION INSPECTOR AT (303) 662-8112 TO SCHEDULE A PRECONSTRUCTION
- MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING. 10. THE OWNER OR OWNER'S REPRESENTATIVE, THE GESC MANAGER, THE GENERAL CONTRACTOR, AND THE GRADING
- SUBCONTRACTOR, IF DIFFERENT FROM THE GENERAL CONTRACTOR, MUST ATTEND THE PRECONSTRUCTION MEETING, IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE GESC FIELD MANUAL IS NOT ON SITE, OR IF THE INSTALLATION OF THE INITIAL BMPs ARE NOT APPROVED BY THE CITY OF LONE TREE GESC INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH BMP INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION. THE CITY OF LONE TREE STRONGLY ENCOURAGES THE APPLICANT TO HAVE THE ENGINEER OF RECORD AT THE PRECONSTRUCTION MEETING. FAILURE OF THE ENGINEER OF RECORD TO ATTEND MAY RESULT IN A
- . CONSTRUCTION SHALL NOT BEGIN UNTIL THE CITY OF LONE TREE GESC INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL BMPs AND THE APPROVED GESC PERMIT IS PICKED UP FROM THE CITY AND IS IN—HAND ON THE SITE. THE COMPLETED PERMIT WILL BE AVAILABLE WITHIN 24-HOURS AFTER THE INSTALLATION OF THE INITIAL BMPs ARE
- 12. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE CITY OF LONE TREE-APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE CITY OF LONE TREE ENGINEERING DIVISION MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE ENGINEERING DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF CONSTRUCTION.
- 13. THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME. LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN. BMP INSTALLATION AND APPROVAL BY THE CITY OF LONE TREE AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL AND/OR GESC FIELD MANUAL
- 14. PRIOR TO ACTUAL CONSTRUCTION, THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE DENVER INTER-UTILITY GROUP AT 1-800-922-1987 OR FAX AT (303) 534-6700.
- 15. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE
- 16. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR, UNLESS EXTENDED.
- 17. A COPY OF THE GESC PERMIT, ACCEPTED GESC PLANS AND THE GESC FIELD MANUAL SHALL BE ON SITE AT ALL
- 18. THE GESC MANAGER SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTEE'S CONTACT PERSON WITH THE CITY FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE PRESENT AT THE SITE THE MAJORITY OF THE TIME AND SHALL BE AVAILABLE THROUGH A 24-HOUR CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, A STOP WORK ORDER SHALL BE ISSUED.
- 19. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE THROUGH THE CITY OF LONE TREE-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL ACCESS POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE CITY OF LONE TREE ENGINEERING DIVISION.
- 20. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE CITY OF LONE TREE GESC INSPECTOR. STREET WASHING IS NOT ALLOWED. THE CITY OF LONE TREE RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.

)(DETAIL 24)

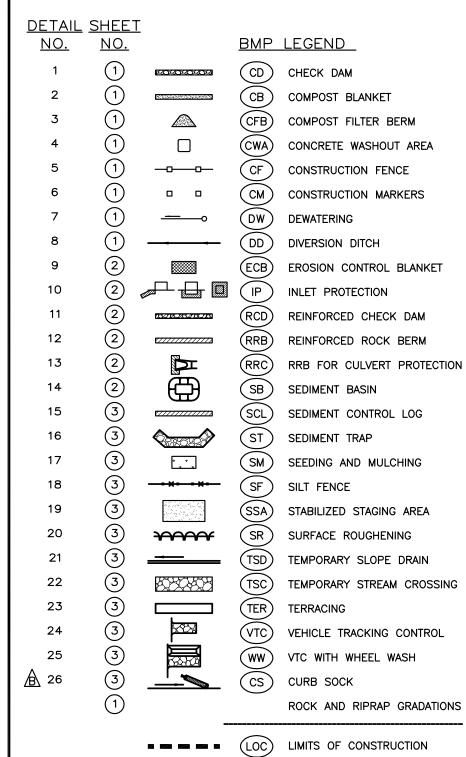
- APPROVED EROSION AND SEDIMENT CONTROL BMPS SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL BMPS IN ACCORDANCE WITH HE ACCEPTED GESC PLAN AND GESC MANÚAL. ALL NECESSARY MAINTENANCE AND REPAIR ACTIVITIES SHALL BE COMPLETED WITHIN 48 HOURS FOR LEVEL III VIOLATIONS, AND IMMEDIATELY FOR LEVEL II VIOLATIONS, OR AS DIRECTED BY A CITY OF LONE TREE GESC INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
- 22. STRAW BALES ARE NOT A GESC-ACCEPTED SEDIMENT CONTROL BMP.
- 23. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE GESC MANAGER SHALL SCHEDULE AN INSPECTION WITH THE CITY OF LONE TREE GESC INSPECTOR AS SOON AS TOPSOIL TRIPPING IS COMPLETED. FAILURE TO SCHEDULE SUCH INSPECTION OR FAILURE TO STOCKPILE TOPSOIL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER. THE STOP WORK ORDER SHALL REMAIN IN PLACE UNTIL TOPSOIL IS STOCKPILED ON SITE OR APPROPRIATE SOIL AMENDMENTS ARE STOCKPILED ON SITE
- 24. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFICIENCIES IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER AND THE CITY OF LONE TREE ENGINEERING FOR ANY
- 25. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
- 26. NO PERMANENT EARTH SLOPES GREATER THAN 3:1 SHALL BE ALLOWED. 27. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE GESC MANAGER, THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO
- ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT. 28. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- 29. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION, NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY THE CITY OF LONE TREE ENGINEERING DIVISION.
- 30. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND THE CITY OF LONE TREE. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. THE APPLICABLE CONTACT INFORMATION (SEE APPENDIX A. DOUGLAS COUNTY GESC MANUAL - SUBJECT TO CHANGE) IS: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT TOLL-FREE 24-HOUR ENVIRONMENTAL EMERGENCY SPILL REPORTING LINE 1-877-518-5608; NATIONAL RESPONSE CENTER (24-HOUR NATIONAL SPILL RESPONSE) 1-800-424-8802; CITY OF LONE TREE PUBLIC WORKS (303) 662-8112. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER.
- ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGE WAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED CITY OF LONE TREE GESC PLAN.
- ALL PROJECTS SHALL BALANCE EARTHWORK QUANTITIES ON SITE. IN THE EVENT A VARIANCE IS GRANTED BY THE CITY ENGINEER TO ALLOW IMPORT OR EXPORT OF MATERIAL, THE PERMITEE SHALL HAVE A GESC PERMIT IN HAND FOR THE IMPORT OR EXPORT SITE PRIOR TO ANY TRANSPORTING OF EARTHEN MATERIAL. THE GESC MANAGER SHALL NOTIFY THE CITY OF LONE TREE GESC INSPECTOR OF THE LOCATION AND GESC PERMIT NUMBERS OF BOTH THE EXPORTING AND IMPORTING SITES PRIOR TO ANY IMPORT/EXPORT OPERATIONS
- 33. THE USE OF REBAR, STEEL STAKES OR STEEL FENCE POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL BMP IS PROHIBITED (EXCEPT STEEL TEE-POSTS FOR USE IN SUPPORTING CONSTRUCTION

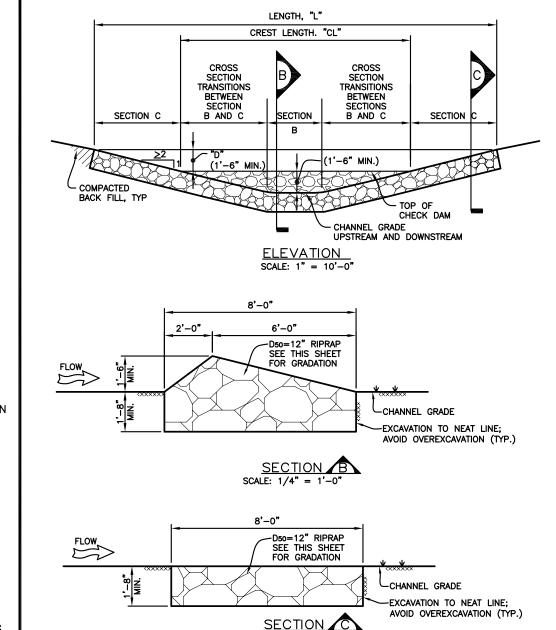
THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT

- LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN
- 35. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH A CITY OF LONE TREE GESC INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
- 36. ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY THE CITY OF LONE TREE
- ENGINEERING (SEPARATE FROM GESC INSPECTIONS). 37. ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED IN ACCORDANCE WITH THE DOUGLAS COUNTY GESC MANUAL CRITERIA AND THE CITY OF LONE TREE SEEDING AND MULCHING DETAIL (#17) INCLUDED HEREIN
- THE CITY OF LONE TREE) OF AN AREA, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR HYDRAULIC SEEDING AND HYDRAULIC MULCHING ARE NOT AN ACCEPTABLE METHOD OF SEEDING OR MULCHING IN

WITHIN THIRTY DAYS OF INITIAL EXPOSURE OR WITHIN SEVEN DAYS OF SUBSTANTIAL COMPLETION (AS DEFINED BY

- NO CURB AND GUTTER PERMITS SHALL BE ISSUED UNTIL ALL DISTURBED AREAS ARE DRILL SEEDED AND CRIMP
- 40. NO PAVING PERMITS SHALL BE ISSUED UNTIL ALL INTERIM INLET PROTECTION IS INSTALLED AND APPROVED BY THE GESC INSPECTOR.
- 41. A FINAL GESC INSPECTION SHALL BE CONDUCTED A MINIMUM OF TWO WEEKS PRIOR TO THE ANTICIPATED REQUEST FOR CERTIFICATE OR TEMPORARY CERTIFICATE OF OCCUPANCY OR INITIAL ACCEPTANCE.



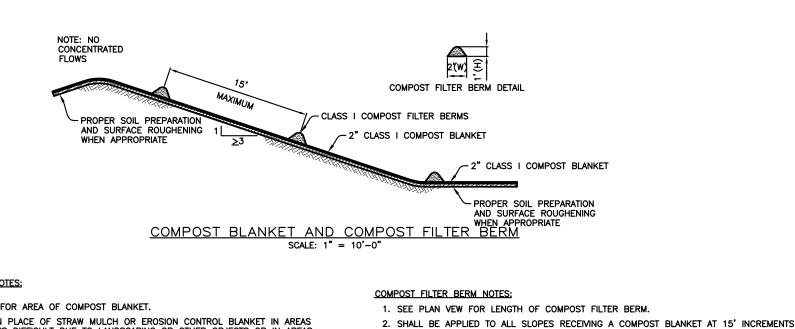


CHECK DAM INSTALLATION NOTES

- SEE PLAN VIEW FOR:

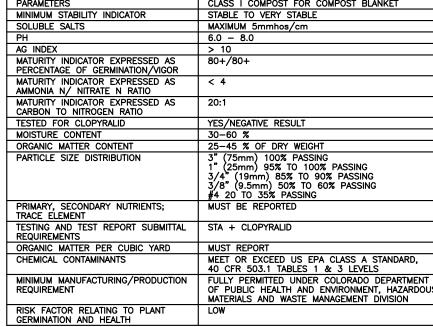
 LOCATIONS OF CHECK DAMS.
 CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
- CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
- 3. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D_{50} MEDIAN STONE SIZE OF 12". 4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-8".
- 1. THE GESC MANAGER SHALL INSPECT CHECK DAMS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
- 2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
- CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY.
- 4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.





COMPOST BLANKET NOTES:

- . SEE PLAN VIEW FOR AREA OF COMPOST BLANKET
- 2. MAY BE USED IN PLACE OF STRAW MULCH OR EROSION CONTROL BLANKET IN AREAS WHERE ACCESS IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
- SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW. 4. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
- 5. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
- 6. SHALL BE EVENLY APPLIED AT A DEPTH OF 2 INCH.
- 7. MAYBE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
- 8. SEEDING SHALL BE DRILLED PRIOR TO THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER. 9. COMPOST FILTER BERM SHALL BE UTILIZED ON SLOPES WITH A MAXIMUM SPACING OF 15 FEET PER THE REQUIREMENTS FOUND IN THE COMPOST FILTER BERM SECTION.
- 10. THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.
- 11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:
- MAXIMUM 5mmhos/cm



COMPOST BLANKET (2)

- 1. SEE PLAN VEW FOR LENGTH OF COMPOST FILTER BERM.
- 3. FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR. 4. FILTER BERMS SHALL BE A MINIMUM OF 1' H x 2' W.
- 5. FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
- SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
- SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
- 8. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
- SEEDING SHALL BE DRILLED BEFORE THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
- 10. THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.

	COMPOST COMPOST														
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PARAMETERS	CLASS I COMPOST FOR COMPOST FILTER BERM
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 - 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30-60 %
ORGANIC MATTER CONTENT	25-45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOU MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT	LOW

NOTE: IF A BIOSOLID COMPOST IS TO BE UTILIZED IT SHALL BE PRODUCED BY A FACILITY IN POSSESSION OF A VALID NOTICE OF AUTHORIZATION (NOA) FOR THE UNRESTRICTED USE AND DISTRIBUTION BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. THE NOA SHALL BE PROVIDED UPON REQUEST TO CITY OF LONE TREE. NOTE: A LAB TEST DETAILING THE CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS SHALL BE PROVIDED UPON REQUEST BY CITY OF LONE TREE.

GERMINATION AND HEALTH

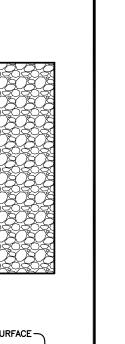
COMPOST FILTER BERM (3)

TABLE 1. RIPRAP GRADATIONS

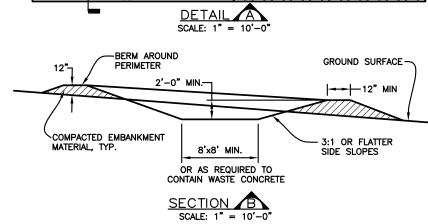
TYPICAL STONE EQUIVALENT

TYPICAL STONE WEIGHT (POUNDS

D50 MEDIAN % OF MATERIAL STONE SIZE (INCHES) TYPICAL STONE



Sheet Revisions



CONCRETE WASHOUT AREA INSTALLATION NOTES SEE PLAN VIEW FOR: LOCATIONS OF CONCRETE WASHOUT AREA.

- 2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
- VEHICLE TRACKING CONTROL (DETAIL 24) IS REQUIRED AT THE ACCESS POINT. 4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE
- ASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND
- 5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION. CONCRETE WASHOUT AREA MAINTENANCE NOTES
- THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
- 3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.
- 4. INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT. (CWA) WASHOUT AREA (4)

ADOPTED FROM DOUGLAS COUNTY GESC PLANS

EDIT UPDATES



NOTE: SCALES SHOWN ARE MLP FOR 24"x36 GAW HEETS; ADJUS ACCORDINGLY ADD CURB SOCK DETAIL (REF UDFCD, V3 FIGURE C5-23), MISC. NOTE EDITS GAW FOR 11"x17"



CITY OF LONE TREE

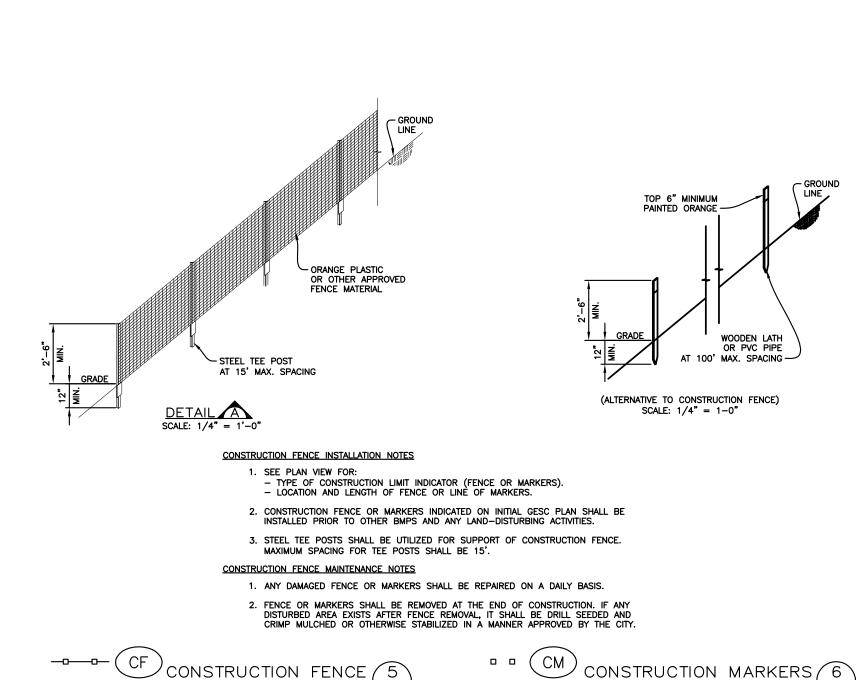
DEPARTMENT OF PUBLIC WORKS

Engineering Division

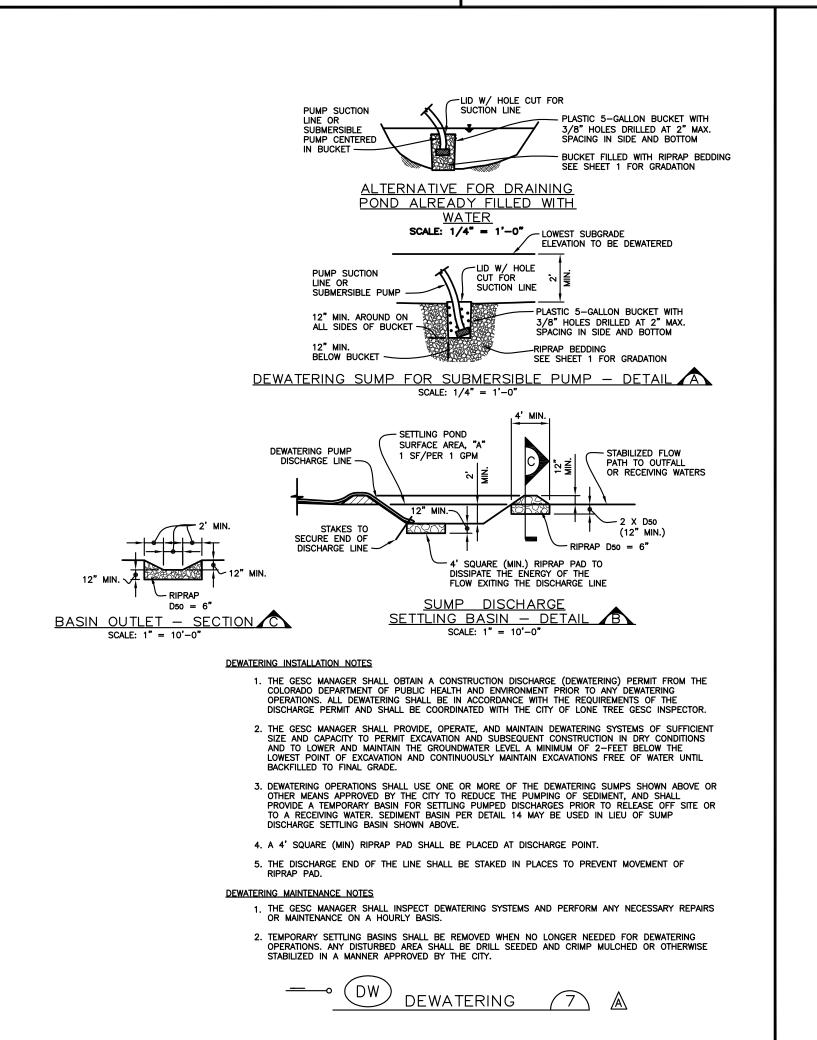
GESC GRADING, EROSION, AND SEDIMENT CONTROL

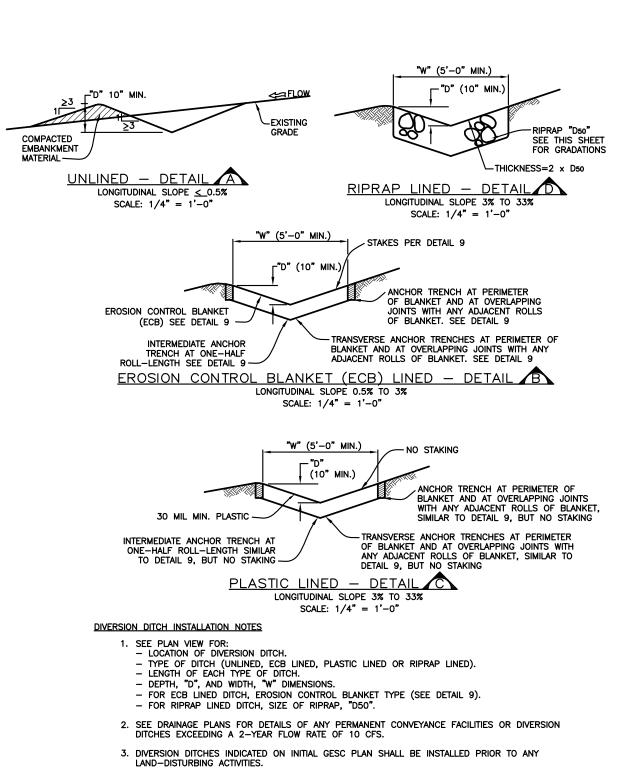
GESC PLAN STANDARD NOTES AND DETAILS

SHEET C4.11



SHEETS.





- FOR ECB LINED DITCHES, INSTALLATION OF EROSION CONTROL BLANKET SHALL CONFORM TO THE REQUIREMENTS OF DETAIL 9. 5. IN LOCATIONS WHERE CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION DITCH, THE PERMITTEES SHALL INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12—INCHES.
- DIVERSION DITCH MAINTENANCE NOTES
- . THE GESC MANAGER SHALL INSPECT DIVERSION DITCHES WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. 2. DIVERSION DITCHES ARE TO REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION, OR, IF APPROVED BY THE CITY, LEFT IN PLACE.
- 3. IF DIVERSION DITCHES ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

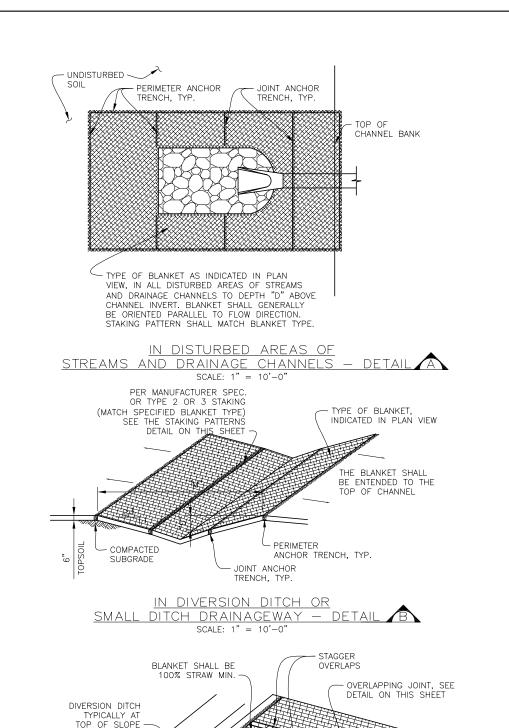
DIVERSION DITCH (8) A

TABLE 2. RIPRAP BEDDING MASS PERCENT PASSING SQUARE MESH SIEVES SIEVE SIZE CLASS A 1 1/2" 20 - 90 0 - 20 NO. 4 NO. 200 0 - 3 MATCHES SPECIFICATIONS FOR CDO CLASS A FILTER MATERIAL AND UDFCD TYPE 1 BEDDING. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

TABLE 3. 1 1/2" CRUSHED ROCK

MASS PERCENT PASSING SQUARE MESH SIEVES NO. 4 1 1/2" 90 - 100 3/4" 0 - 15 3/8" MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

ROCK AND RIPRAP GRADATIONS



PER MANUFACTURER

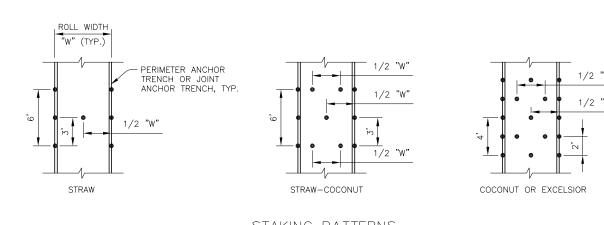
DETAIL ON THIS SHEET -

- PERIMETER ANCHOR TRENCH-SEE DETAIL ON THIS SHEET

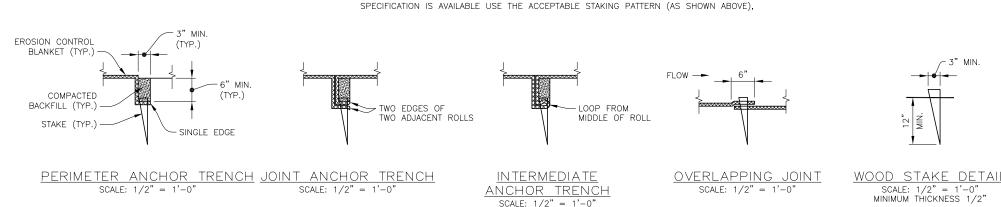
OUTSIDE OF STREAMS

AND DRAINAGE CHANNELS — DETAIL C

SCALE: 1" = 10'-0"



STAKING PATTERNS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION. IF NO MANUFACTURER'S



EROSION CONTROL BLANKET INSTALLATION NOTES

- SEE PLAN VIEW FOR:

 LOCATION OF PERIMETER OF EROSION CONTROL BLANKET.

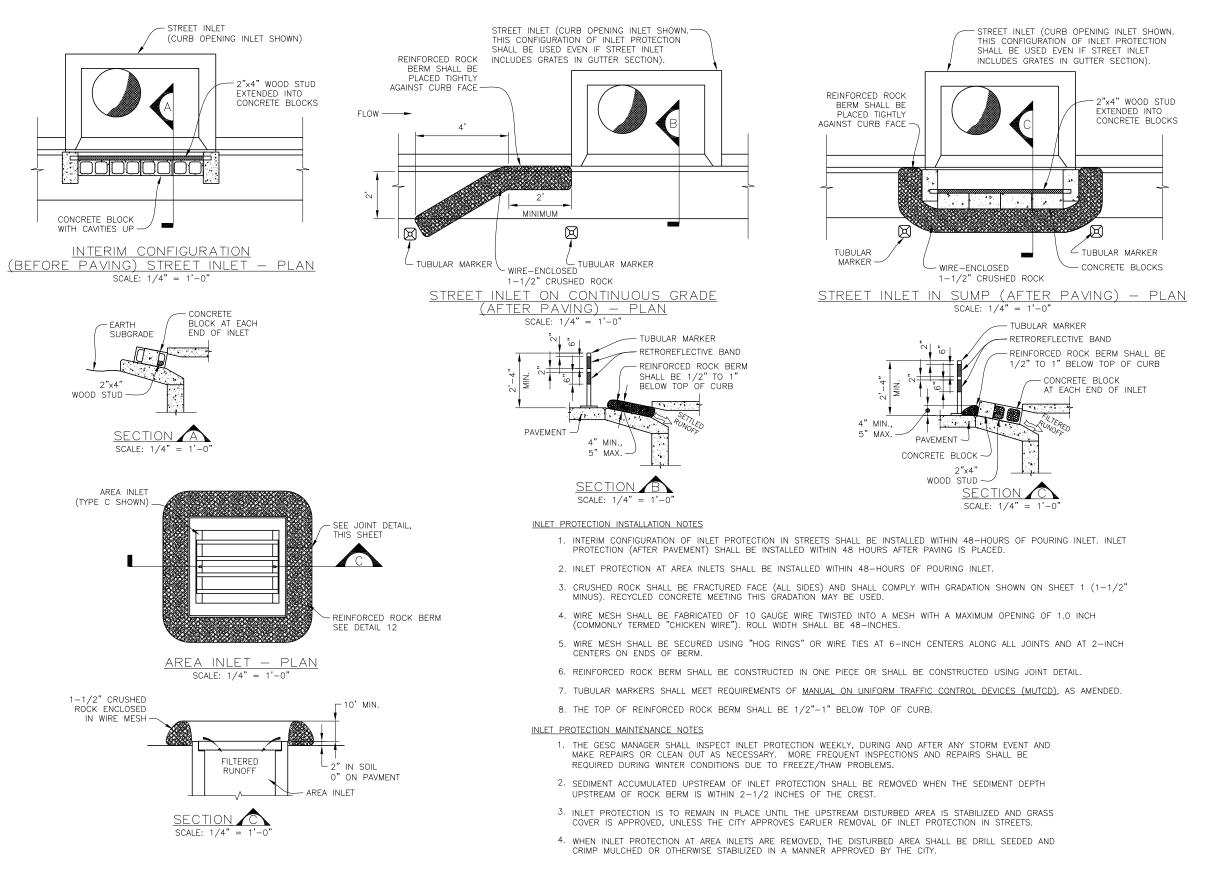
 - TYPE OF BLANKET (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR). - AREA "A" IN SQUARE YARDS OF EACH TYPE OF BLANKET.
- 2. ALL EROSION CONTROL BLANKETS AND NETTING SHALL BE MADE OF 100% NATURAL AND BIODEGRADABLE MATERIAL; NO PLASTIC OR OTHER SYNTHETIC MATERIAL, EVEN IF PHOTO DEGRADABLE,
- 3. IN AREAS WHERE EROSION CONTROL BLANKET IS SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING BELOW THE BLANKET IN ACCORDANCE WITH THE REQUIREMENTS OF DETAIL 17, SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO BLANKET INSTALLATION AND THE BLANKET SHALL BE IN FULL CONTACT WITH SUBGRADE, NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- 4. PERIMETER ANCHOR TRENCH SHALL BE USED AT OUTSIDE PERIMETER OF ALL BLANKET AREAS. 5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL BLANKETS EXCEPT STRAW, WHICH MAY USE AN OVERLAPPING JOINT.

6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF THE ROLL LENGTH FOR

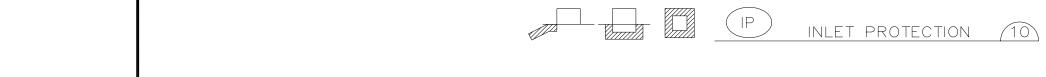
- 7. THE OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER FOR BLANKETS ON SLOPES.
- 8. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKET SHALL CONFORM TO TABLE 7.1.
- EROSION CONTROL BLANKET INSTALLATION NOTES CONTINUED 9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKET SHALL BE RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 17.
- 10. SEE DRAINAGE DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION MEASURES THAT MAY EXCEED THE DESIGN CONDITIONS ASSOCIATED WITH THE DETAILS ABOVE.

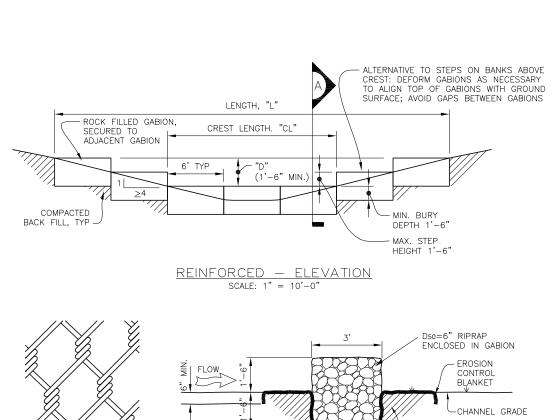
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	NETTING MIN.
STRAW*	-	100%	_	DOUBLE/NATURA
STRAW-COCONUT	30% MIN.	70% MAX.	_	DOUBLE/NATURA
COCONUT	100%	-	_	DOUBLE/NATURA
EXCELSIOR	_	_	100%	DOUBLE/NATURA

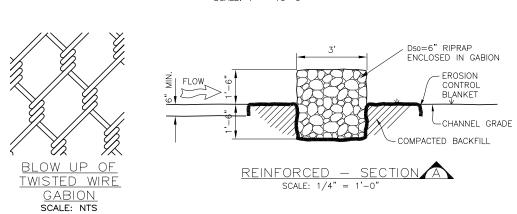
- EROSION CONTROL BLANKET MAINTENANCE NOTES 1. THE GESC MANAGER SHALL INSPECT EROSION CONTROL BLANKETS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
- 2. EROSION CONTROL BLANKET IS TO BE LEFT IN PLACE UNLESS REQUESTED TO BE REMOVED BY THE CITY.
- 3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE RE—INSTALLED. ANY SUBGRADE AREAS BELOW THE BLANKET THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.











REINFORCED CHECK DAM INSTALLATION NOTES

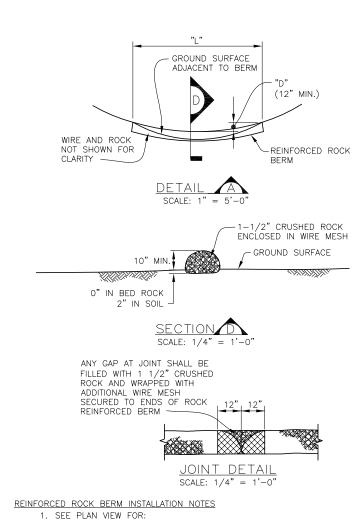
- SEE PLAN VIEW FOR:

 LOCATIONS OF CHECK DAMS.
 CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
- 2. CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
- 3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4-1/2" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT GABION.
- 4. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A $\mathrm{D_{50}}$ MEDIAN STONE SIZE OF 6". 5. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-6".
- 6. EROSION BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1'-6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

REINFORCED CHECK DAM MAINTENANCE NOTES

- 1. THE GESC MANAGER SHALL INSPECT CHECK DAMS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. 2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN $\frac{1}{2}$ OF THE HEIGHT OF THE CREST.
- 3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY.
- 4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.





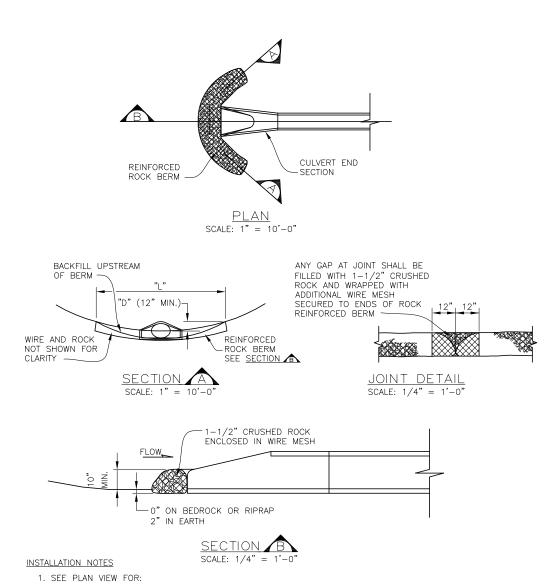
SEE PLAN VIEW FOR:

 LOCATIONS OF REINFORCED ROCK BERMS.
 LENGTH, "L", AND DEPTH, "D" DIMENSIONS.

REINFORCED ROCK BERM MAINTENANCE NOTES

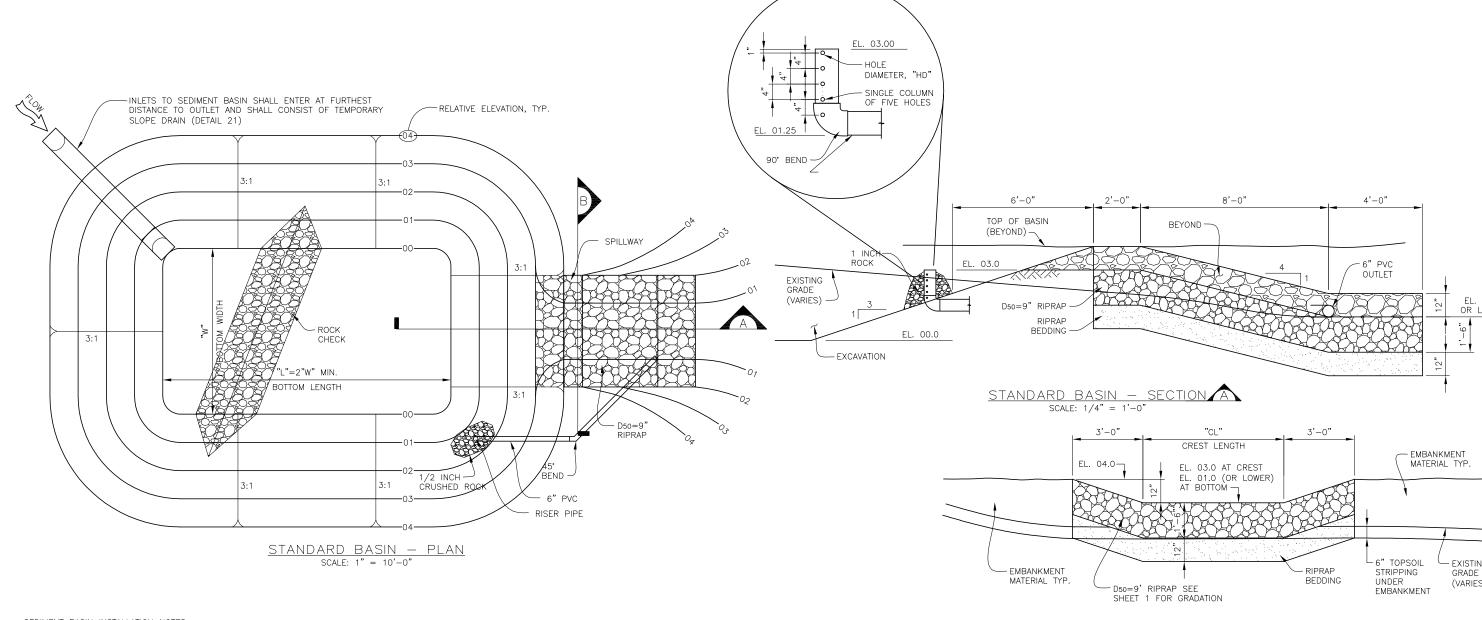
- 2. REINFORCED ROCK BERM SECTION APPLIES TO CULVERT INLET FILTER AND INLET PROTECTION.
- 3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 1 (1-1/2" MINUS). RECYCLED CONCRETE MEETING THIS GRADATION MAY BE USED. 4. WIRE MESH SHALL BE FABRICATED OF 10 GAUGE WIRE TWISTED INTO
- A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48—INCHES.
- 5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON
- 6. FOR CONCENTRATED FLOW AREAS THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.
- 1. THE GESC MANAGER SHALL INSPECT REINFORCED ROCK BERM WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT
- SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED ROCK BERM SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS WITHIN 5 INCHES OF THE CREST.
- 3. REINFORCED ROCK BERMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED.
- 4. WHEN REINFORCED ROCK BERMS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.





- LOCATIONS OF CULVERT INLET FILTERS.
 LENGTH, "L", AND DEPTH, "D".
- 2. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 1 (1-1/2" MINUS). RECYCLED CONCRÈTE MEETING THIS GRADATION MAY BE USED.
- 3. WIRE MESH SHALL BE FABRICATED OF 10 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). 4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6—INCH CENTERS ALONG ALL JOINTS AND AT 2—INCH CENTERS ON ENDS OF BERM.
- 5. THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.
- MAINTENANCE NOTES 1. THE GESC MANAGER SHALL INSPECT CULVERT INLET FILTER WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
- 2. SEDIMENT ACCUMULATED UPSTREAM OF CULVERT INLET FILTER SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS $\frac{1}{2}$ THE HEIGHT OF THE REINFORCED ROCK BERM.
- 3. RRB FOR CULVERT PROTECTION ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY. 4. WHEN CULVERT INLET FILTERS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.





SEDIMENT BASIN INSTALLATION NOTES

- TYPE OF BASIN (STANDARD BASIN OR NON-STANDARD BASIN).
 FOR STANDARD BASIN, CREST LENGTH, "CL", BOTTOM WIDTH, "W", AND HOLE DIAMETER, "HD".
 FOR NON-STANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT, "H", NUMBER OF COLUMNS, "N", HOLE DIAMETER, "HD", AND PIPE DIAMETER "D".
- 2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED. 3. SEDIMENT BASINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY OTHER
- 4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE. 5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
- 6. PIPE SCH 40 OR GREATER SHALL BE USED.
- 7. THE DETAILS SHOWN ON THIS SHEET PERTAIN TO STANDARD SEDIMENT BASIN(S) IDENTIFIED ON THE GESC PLAN VIEW DRAWINGS USED FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT SEDIMENT BASIN WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.

STANDARD BASIN — SECTION B SCALE: 1/4" = 1'-0"

- 2. SEDIMENT ACCUMULATED IN SEDIMENT BASIN SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 2.0 FEET OF THE CREST OF THE SPILLWAY.
- 3. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY. 4. IF SEDIMENT BASINS ARE REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

SB SEDIMENT BASIN (14)

	Sheet Revisions		NOTE: SCALES
6/30/05	ADOPTED FROM DOUGLAS COUNTY GESC PLANS	MLP	SHOWN ARE FOR 24"x36"
5/ /08	edit updates 🛕	GAW	SHEETS; ADJUST
1/ /08	ADD CURB SOCK DETAIL (REF UDFCD, V3 FIGURE C5-23), MISC. NOTE EDITS	GAW	ACCORDINGLY FOR 11"x17"
			CHEETS

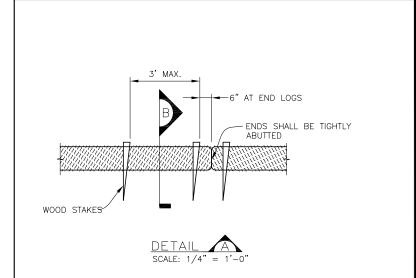


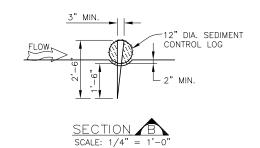


ANY GAP AT JOINT SHALL BE

FILLED WITH 1-1/2" CRUSHED ROCK AND WRAPPED WITH

ADDITIONAL WIRE MESH
SECURED TO ENDS OF ROCK
REINFORCED BERM





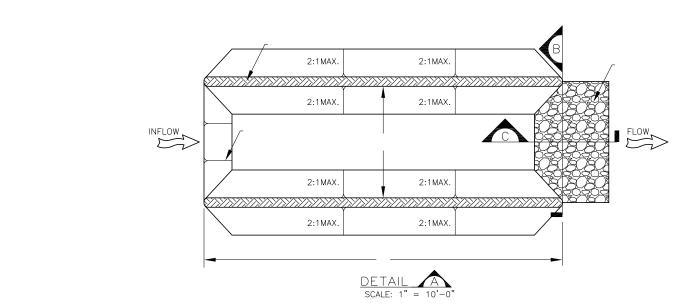
SEDIMENT CONTROL LOG INSTALLATION NOTES

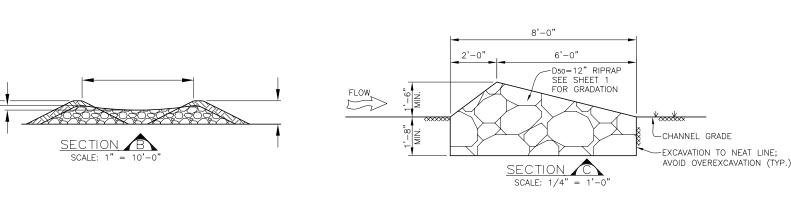
- SEE PLAN VIEW FOR: - LOCATION AND LENGTH OF SEDIMENT CONTROL LOG. 2. SEDIMENT CONTROL LOGS INDICATED ON INITIAL GESC PLAN
- SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
- 4. NOT FOR USE IN CONCENTRATED FLOW AREAS. 5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE
- GROUND A MINIMUM OF 2".

SEDIMENT CONTROL LOG MAINTENANCE NOTES 1. THE GESC MANAGER SHALL INSPECT SEDIMENT CONTROL LOGS

- DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
- 2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST OF LOG.
- 3. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE

(SCL) SEDIMENT CONTROL LOG (15)





SEDIMENT TRAP INSTALLATION NOTES 1. SEE PLAN VIEW FOR:

- LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP. 2. SEDIMENT TRAPS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR
- 3. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
- 4. RIPRAP OUTLET SHALL BE CONSTRUCTED WITH D =12" RIPRAP WITH A MINIMUM
- 5. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
- 6. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE MINIMUM OF 6" HIGHER
- THAN THE CENTER OF THE OUTLET STRUCTURE.

SEDIMENT TRAP MAINTENANCE NOTES

- 1. THE GESC MANAGER SHALL INSPECT SEDIMENT TRAPS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY
- 2. SEDIMENT ACCUMULATED UPSTREAM OF RIPRAP SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN $\frac{1}{2}$ THE HEIGHT OF THE RIPRAP OUTLET STRUCTURE.
- 3. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVERAGE IS APPROVED BY THE CITY.
- 4. WHEN SEDIMENT TRAPS ARE REMOVED THE DISTURBED AREA SHALL BE DRILLED SEEDED AND CRIMP MULCHED OR STABILIZED IN A MANNER APPROVED BY THE CITY.
- ST SEDIMENT TRAP (16)

TERMINATION OF PLASTIC LINED

<u>slope drain — detail 🔼</u>

SEEDING AND MULCHING INSTALLATION NOTES

- 1. SEE PLAN VIEW FOR: AREA OF SEEDING AND MULCHING - TYPE OF SEED MIX (PERMANENT, TEMPORARY, OR LOW-GROWTH).
- 2. ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS SEEDS AS RUSSIAN OR NADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAP WEED 3. THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED LABORATORY. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO CITY OF
- 4. DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ON THE RIGHT: 5. IF THE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND
- GERMINATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A LESSER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE SUPPLIED TO CONTRACTOR AND FORWARDED TO THE CITY OF LONE TREE GESC INSPECTOR. 6. THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEÉD (PLS)
- 7. PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY THE CITY.
- 8. ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAUL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO
- 9. SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO SEEDING, THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENED SHALL BE REJECTED. SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH OF 1/4 INCH. ROW
- SPACING SHALL BE NO MORE THAN 6 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF LONG-STEMMED STRAW. AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO A DEPTH OF AT LEAST 2 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF
- SEED IS TO BE UNIFORMLY BROADCAST AT TWO TIMES THE DRILLED RATE, THEN LIGHTLY HARROWED TO PROVIDE A SEED DEPTH OF APPROXIMATELY 1/4 INCH, THEN ROLLED TO COMPACT, THEN MULCHED AS SPECIFIED ABOVE.

11. IF THE PERMITTEE DEMONSTRATES TO THE CITY THAT IT IS NOT POSSIBLE TO DRILL SEED,

- 12. SEEDING AND MULCHING SHALL BE COMPLETED WITHIN 30 DAYS OF INITIAL EXPOSURE OR 7 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETE IN A GIVEN AREA (AS DEFINED BY THE CITY). THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING. 13. MULCH SHALL BE APPLIED WITHIN 24-HOURS OF SEEDING.
- 14. TACKIFIER SHOULD BE UTILIZED TO HELP WITH STRAW DISPLACEMENT.
- . SEEDED AND MULCHED AREAS SHALL BE INSPECTED FOR REQUIRED COVERAGE MONTHLY FOR A PERIOD OF TWO YEARS FOLLOWING INITIAL SEEDING. REPAIRS AND RE—SEEDING AND MULCHING SHALL BE UNDERTAKEN AFTER THE FIRST GROWING SEASON FOR ANY AREAS FAILING TO MEET THE REQUIRED COVERAGE.
- 2. REQUIRED COVERAGE FOR STANDARD, OPEN SPACE AND LOW GROWTH SEED MIXES SHALL BE DEFINED AS FOLLOWS:
- THREE (3) PLANTS PER SQUARE FOOT WITH A MINIMUM HEIGHT OF 3 INCHES. THE 3 PLANTS PER SQUARE FOOT SHALL BE OF THE VARIETY AND SPECIES FOUND IN THE CITY OF LONE TREE—APPROVED MIX. 2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR
- 3. FREE OF ERODED AREAS.

SEEDING AND MULCHING MAINTENANCE NOTES

- 4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC CRITERIA MANUAL.
- 3. REQUIRED COVERAGE FOR TURF GRASS AREAS SHALL BE DEFINED AS FOLLOWS: 1. AT LEAST 80% VEGETATIVE COVER OF GRASS SPECIES PLANTED.
- 2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR
- 3. FREE OF ERODED AREAS. 4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4
- OF THE GESC CRITERIA MANUAL. 4. RILL AND GULLY EROSION SHALL BE FILLED WITH TOPSOIL PRIOR TO RESEEDING. THE RESEEDING METHOD SHALL BE APPROVED BY THE CITY.

POUNDS OF PLS PER ACRE NOTES % IN MIX <u>SPECIES</u> BIG BLUESTEM KAW PNWS 1.1 YELLOW INDIANGRASS CHEYENNE PNWS 10 SWITCHGRASS PNWS 10 0.4 BLACKWELL VAUGHN PNWB SIDEOATS GRAMA 0.9 WESTERN ARRIBA PNCS 1.6 PNWB BLUE GRAMA HACHITA 0.3 PNCS CRITANA WHEATGRASS PRAIRIE SANDREEL GOSHEN PNWS 0.7 GREEN NEEDLEGRASS LODORM PNCB PRYOR PNCB 0.6 STREAMBANK SODAR PNCS 5 0.6

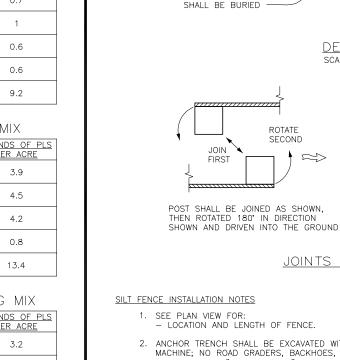
CITY OF LONE TREE PERMANENT DRILL SEEDING MIX

CITY OF	LONE TREE TEMP	ORARY [RILL SEEDIN	NG MIX
<u>SPECIES</u>	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9
INTERMEDIATE WHEATGRASS	OAHE	PICS	30	4.5
PUBESCENT WHEATGRASS	LUNA	PICS	30	4.2
ANNUAL RYEGRASS	N/A	AICB	10	0.8
			TOTAL	13.4

TOTAL

CITY OF	LONE TREE LOW-	GROWTH	DRILL SEE	DING MIX
<u>SPECIES</u>	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BUFFALOGRASS	TEXOKA	PNWS	20	3.2
BLUE GRAMA	HACHITA	PNWB	20	0.6
WESTERN WHEATGRASS	ARRIBA	PNCS	20	3.2
SIDEOATS GRAMA	VAUGHN	PNWB	20	1.8
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
STREAMBANK WHEATGRASS	SODAR	PNCS	10	1.2
			TOTAL	11.0

SM SEEDING AND MULCHING (17) A



EXISTING GROUND -

COMPACTED BACKFILL

6" MIN. —

FLOW 😂

JOINTS — SECTION B SCALE: N.T.S.

- 2. ANCHOR TRENCH SHALL BE EXCAVATED WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE; NO ROAD GRADERS, BACKHOES, ETC. SHALL BE USED. TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK", OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND. 3. SILT FENCE GEOTEXTILE SHALL MEET THE FOLLOWING REQUIREMENTS:

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

- 1 1/2"x1 1/2" WOODEN FENCE POSTS

UNDISTURBED VEGETATION

ON DOWN GRADIENT SIDE (FOR SILT FENCE SHOWN

N INITIAL GESC PLAN)

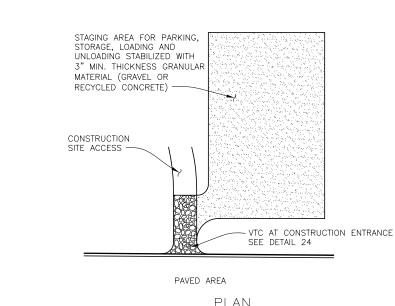
THICKNESS OF GEOTEXTILE

- 6-TO 12-GALLONS PER MINUTE PER SQUARE FOOT FLOW CAPACITY.
 90 LB. TENSILE STRENGTH PER ASTM D4622.
 UV DESIGN AT 500 HRS MIN. 70% STRENGTH RETAINED PER ASTM D 4355.
- 4. SILT FENCE INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY

SILT FENCE MAINTENANCE NOTES

- THE GESC MANAGER SHALL INSPECT SILT FENCE DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
- 2. SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6—INCHES.
- 3. SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.





STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH CITY APPROVAL.

SCALE: N.T.S.

- 2 STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY ONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING
- 3. IF REQUIRED BY THE CITY, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.
- 4. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
- 5. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR RECYCLED CONCRETE).
- STABILIZED STAGING AREA MAINTENANCE NOTES
- 1. THE GESC MANAGER SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE
- REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY. GESC MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
- 3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING
- 4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA. 5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END
- OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE CITY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE

— WASHWATER'



STOP SIGN PER

SIGN "CONSTRUCTION ENTRANCE"

CONSTRUCTION FENCE, TYP., TO D VEHICLE ACCESS EXCEPT AT VTC

 $\frac{PLAN}{SCALE: 1" = 20'-0"}$

 $\frac{\text{SECTION B}}{\text{SCALE: 1"} = 10'-0"}$

ALTHOUGH NOT NORMALLY USED, THE CITY RESERVES THE RIGHT TO REQUIRE VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES AT SITES WHERE TRACKING ONTO PAVED AREAS BECOMES A

2. IF VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES ARE REQUIRED, ALL WHEELS ON EVERY VEHICLE LEAVING THE SITE SHALL BE CLEANED OF MUD USING A PRESSURE—WASHER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE.

VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE.

THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTION.

5. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITEE.

1. GESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL PADS DAILY. ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM PAD SURFACE. STONE SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS SUFFICIENTLY TO CAUSE LOOSE GRAVEL TO DISLODGE MUD/SEDIMENT FROM VEHICLE TIRES. WHEN STONE BECOMES COMPACTED AND/OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN THE STONE, PLACE ADDITIONAL NEW STONE, OR REPLACE STONE AS NECESSARY TO RESTORE EFFECTIVENESS.

. ACCUMULATED SEDIMENT IN THE WASHWATER/SEDIMENT TRAP SHALL BE REMOVED WHEN THE SEDIMENT DEPTH REACHES AN AVERAGE OF 12-INCHES.

3. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE STONE MATERIAL AND GEOTEXTILE REMOVED OR, IF APPROVED BY THE CITY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN CONFORMANCE WITH CITY APPROVED PLANS FOR SITE AND THE APPLICABLE GESC PERMIT.

4. WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE VTC STONE TO HELP MINIMIZE MIGRATION OF THE STONE INTO THE UNDERLYING BASE MATERIAL.

6. A CITY OF LONE TREE TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH ACCESS/EXIT POINT FROM THE SITE.

7. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE <u>MANUAL ON UNIFORM TRAFFIC CONTROL</u>
<u>DEVICES (MUTCD)</u>, AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

├─ VARIES 12" TO 1'-10"±

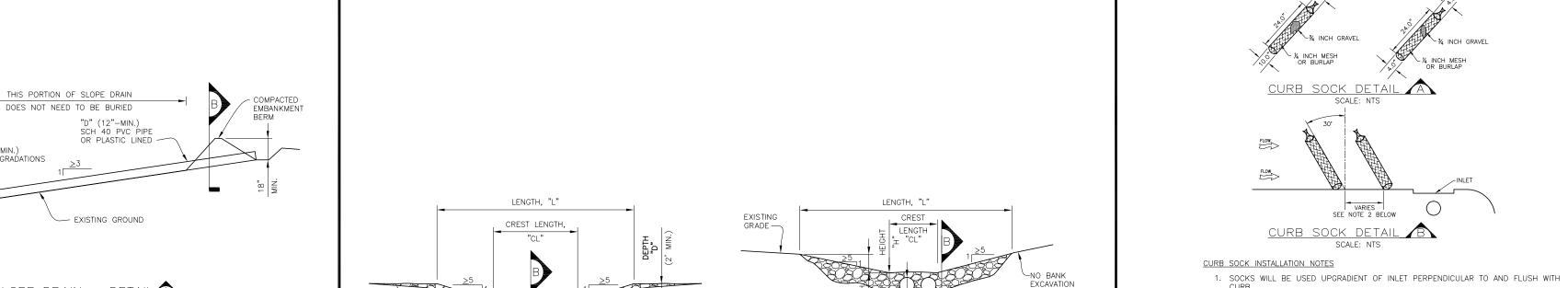
WOVEN GEOTEXTILE ~

——R=5'

TOP VOIDS FILLED

HICLE TRACKING CONTROL WITH WHEEL WASH INSTALLATION NOTES

HICLE TRACKING CONTROL WITH WHEEL WASH MAINTENANCE NOTES



- STREAM CROSSING TYPE (FORD OR CULVERT).
- FOR FORD CROSSING: LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
- FOR CULVERT CROSSING: LENGTH, "L", CREST LENGTH, "CL", CROSSING HEIGHT, "H", DEPTH, "D", CULVERT DIAMETER, "CD",

2. TEMPORARY STREAM CROSSING DIMENSIONS, D50, AND NUMBER OF CULVERTS INDICATED (FOR CULVERT CROSSING) SHALL BE CONSIDERED MINIMUM DIMENSIONS; ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING

4. FOR A TEMPORARY STREAM CROSSING THAT WILL CARRY LOADS, THE TEMPORARY STREAM CROSSING MUST BE DESIGNED BY

(TSC) TEMPORARY STREAM CROSSING (22)

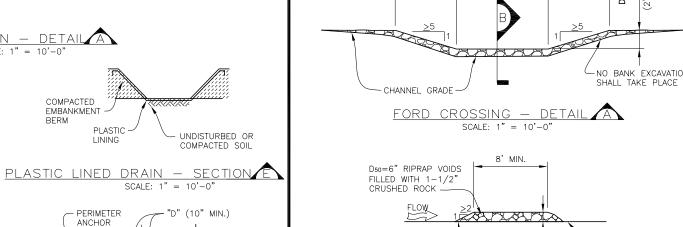
OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

1. THE GESC MANAGER SHALL INSPECT STREAM CROSSINGS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.

SEDIMENT ACCUMULATED UPSTREAM OF STREAM CROSSINGS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH
UPSTREAM OF CROSSING IS WITHIN 6-INCHES OF THE CREST (FORD CROSSING) OR GREATER THAN AN AVERAGE
DEPTH OF 12-INCHES (CULVERT CROSSING).

3. STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.

4. WHEN STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.



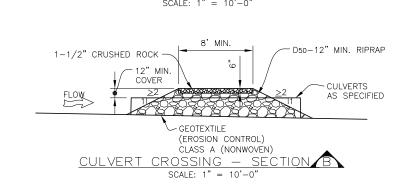
GEOTEXTILE (EROSION CONTROL ČLASS A (NONWOVÉN)

TEMPORARY STREAM CROSSING INSTALLATION NOTES

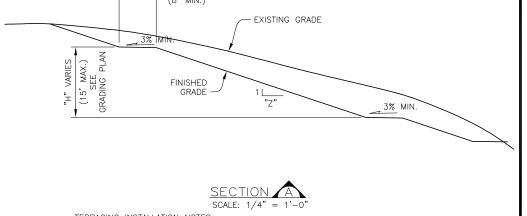
TEMPORARY STREAM CROSSING MAINTENANCE NOTES

1. SEE PLAN VIEW FOR:
- LOCATIONS OF TEMPORARY STREAM CROSSING.

3. SEE SHEET 1 FOR RIPRAP AND 1-1/2" CRUSHED ROCK GRADATIONS.



(8' MIN.) - EXISTING GRADE



NO LESS THAN TWO 10" DIAMETER SOCKS MUST BE USED IN SEQUENCE, SPACED NO MORE THAN 5 FEET APART. NO LESS THAN SIX SOCKS SHALL BE USED IF THE 4" SOCK IS USED, ALSO SPACED AT NO MORE THAN 5 FEET APART.

3. INCLINE AT 30 DEGREES FROM PERPENDICULAR, OPPOSITE THE DIRECTION OF FLOW

1. THE GESC MANAGER SHALL INSPECT THE CURB SOCKS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPGRADIENT SEDIMENT AS

CS CURB SOCK (26)

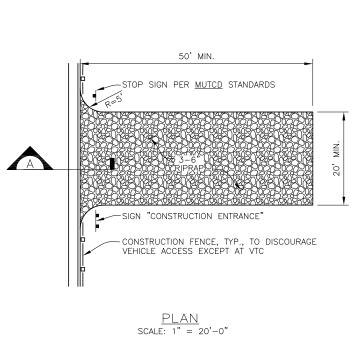
(SEE DETAIL B).

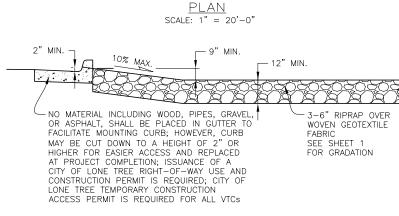
CURB SOCK MAINTENANCE NOTES

TERRACING INSTALLATION NOTES 1. SEE PLAN VIEW FOR: - WIDTH, "W", AND SLOPE, "Z".

- 2. TERRACING IS NOT REQUIRED FOR SLOPES OF 4 TO 1 OR FLATTER.
- 3. EARTH (VEGETATED) SLOPES STEEPER THAN 3 TO 1 ARE NOT ALLOWED ON THE SITE.
- TERRACING MAINTENANCE NOTES THE GESC MANAGER SHALL INSPECT THE SURFACE ROUGHENING WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
- 2. ANY RILL EROSION OCCURRING ON SLOPES SHALL BE REPAIRED AND RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 17.

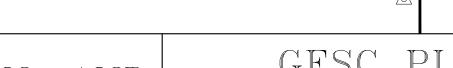






SECTION A SCALE: 1/4" = 1'-0" VEHICLE TRACKING CONTROL INSTALLATION NOTES VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT EVERY ACCESS POINT TO SITE.

- 2. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
- 3. WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE VTC STONE TO HELP MINIMIZE MIGRATION OF THE STONE INTO THE UNDERLYING MATERIAL. 4. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITTEE.
- 5. A CITY OF LONE TREE TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH ACCESS/EXIT POINT FROM THE SITE. 6. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.
- VEHICLE TRACKING CONTROL MAINTENANCE NOTES 1. GESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL PADS DAILY.
 ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM PAD SURFACE. STONE
 SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER
 WHEEL LOADS SUFFICIENTLY TO CAUSE LOOSE GRAVEL TO DISLODGE
- MUD/SEDIMENT FROM VEHICLE TIRES. WHEN STONE BECOMES COMPACTED AND/OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN THE STONE, PLACE ADDITIONAL NEW STONE, OR REPLACE STONE AS NECESSARY TO RESTORE EFFECTIVENESS. 2. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE STONE MATERIAL AND GEOTEXTILE REMOVED OR, IF APPROVED BY THE CITY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN CONFORMANCE
 - WITH CITY APPROVED PLANS FOR SITE AND THE APPLICABLE GESC PERMIT. (VTC) VEHICLE TRACKING CONTROL (24)



GESC PLAN AND DETAILS



(WW) VTC WITH WHEEL WASH (25)

$\frac{\text{SECTION A}}{\text{SCALE: } 1/4" = 1'-0"}$ SURFACE ROUGHENING INSTALLATION NOTES GRADES (SLOPES AND "FLAT" AREAS) WITHIN 2 DAYS OF COMPLETION OF FINISHED GRADE (FOR AREAS NOT RECEIVING

6" TOPSOIL LAYER, TYP.

PARALLEL TO CONTOURS

FINISHED GRADE

- AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD IS TO BE PLACED WITHIN 7—DAYS OF FINISHED GRADING DO NOT NEED TO BE SURFACE ROUGHENED. 3. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.
- SURFACE ROUGHENING MAINTENANCE NOTES 1. THE GESC MANAGER SHALL INSPECT THE SURFACE ROUGHENING WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
- VEHICLES AND EQUIPMENT SHALL GENERALLY BE CONFINED TO ACCESS DRIVES AND SHALL NOT BE DRIVEN OVER AREAS THAT
- IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
- IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE—ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ANY RILL EROSION.
- SR SURFACE ROUGHENING 20

EDIT UPDATES

UPDATE VTC & WW 🔼

6/30/05

5/ /08

TSD) TEMPORARY SLOPE DRAIN (21) Sheet Revisions ADOPTED FROM DOUGLAS COUNTY GESC PLANS MLP

ADD CURB SOCK DETAIL (REF UDFCD, V3 FIGURE C5-23), MISC. NOTE EDITS

SEE SHEET 1 FOR GRADATIONS

COMPACTED SOIL

← 4X "D" MIN.

TERMINATION OF RIPRAP LINED

1. SEE PLAN VIEW FOR:

SLOPE DRAIN - DETAIL D

SCALE: 1" = 10'-0"

SLOPE DRAIN INSTALLATION NOTES

SLOPE DRAIN MAINTENANCE NOTES

"D50" RIPRAP

- LOCATION AND LENGTH OF SLOPE DRAIN.

- PIPE DIAMETER, "D", AND RIPRAP SIZE, "D50".

SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO SLOPE OR SLOPE DRAIN DURING RUNOFF EVENTS SHALL BE THE

3. SLOPE DRAINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY UPSTREAM LAND—DISTURBING ACTIVITIES.

4. FOR TEMPORARY SLOPE DRAINS, PIPE MAY BE INSTALLED ON TOP OF

SLOPE; HOWEVER, 12" MIN. COVER AT TOP OF SLOPE SHALL BE PROVIDED.

5. A RIPRAP PAD SHALL BE PLACED AT THE OUTFALL OF THE SLOPE DRAIN.

1. THE GESC MANAGER SHALL INSPECT SLOPE DRAINS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.

2. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER

GAW

GAW

GAW

SLOPE DRAIN — DETAIL A

SCALE: 1" = 10'-0"

6 x "D"

RIPRAP BEDDING
SEE SHEET 1
FOR GRADATION

NOTE: SCALES SHOWN ARE FOR 24"x36" HEETS; ADJUS⁻

ACCORDINGLY

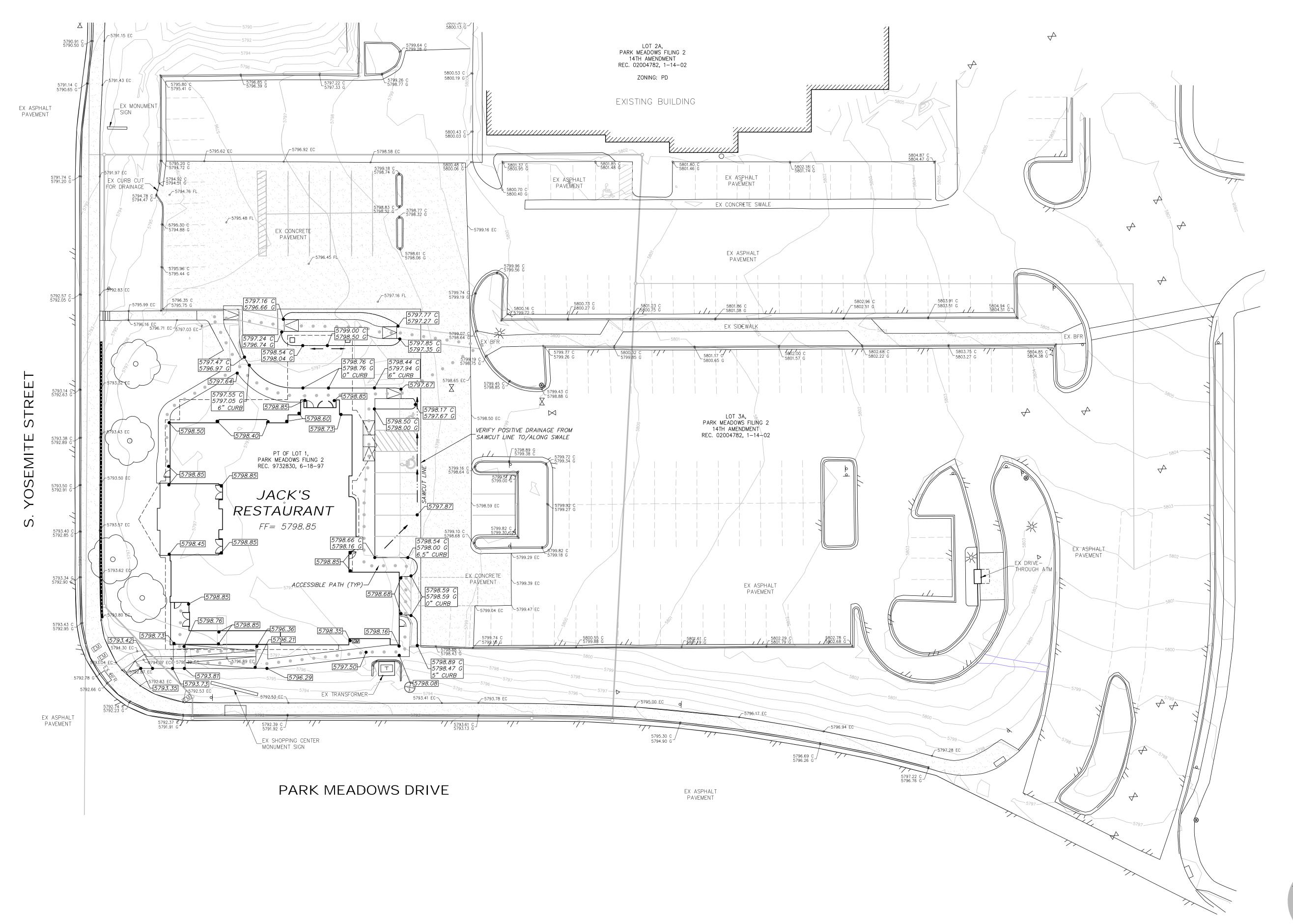
FOR 11"x17"

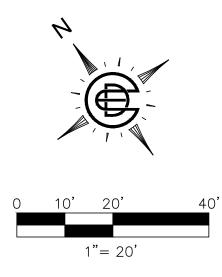
SHEETS.

DEPARTMENT OF PUBLIC WORKS

Engineering Division







GRADING GENERAL NOTES

- 1. SOIL MODIFICATION, GRADING, FILL COMPACTION, AND BUILDING PAD PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY TERRACON GEOTECHNICAL ENGINEERING & CONSULTING SERVICES, PROJECT NUMBER 25235076, DATED JUNE 30, 2023. IN THE EVENT OF A CONFLICT BETWEEN THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND THE INFORMATION IN THESE PLANS, THE GEOTECHNICAL REPORT SHALL GOVERN.
- 2. EXISTING GRADE INFORMATION IS BASED ON TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY ARROW SURVEY GROUP, INC..
- 3. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCY.
- 4. THE CONTRACTOR SHALL CONTACT THE OWNER AND PROJECT ENGINEER PRIOR TO ANY WORK TO IDENTIFY ANY ARES THAT REQUIRE SPECIAL ATTENTION (PROTECTION, PRESERVATION, ETC.).
- 5. EROSION CONTROL DEVICES SHALL BE COMPLETELY INSTALLED FOR ALL AREAS BEING DISTURBED PRIOR TO ANY DISTURBANCE. REFER TO THE EROSION CONTROL PLAN AND SWPPP.
- 6. THE PROPOSED ELEVATIONS AND CONTOURS SHOWN ON THIS PLAN REPRESENT FINISHED SURFACE ELEVATIONS. SPOT ELEVATIONS SHALL GOVERN IN ANY DISCREPANCY BETWEEN SPOT ELEVATIONS AND CONTOURS.
- 7. ALL AREAS ALONG THE IDENTIFIED ACCESSIBLE ROUTE(S) SHALL BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. UNLESS OTHERWISE REQUIRED, ALL ROUTES SHALL HAVE A MAXIMUM LONGITUDINAL (RUNNING) SLOPE OF 5% AND A MAXIMUM LATERAL (CROSS) SLOPE OF 2%. ALL ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL HAVE A MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS.
- 8. REFER TO THE BUILDING PLANS FOR DETAILED GRADE INFORMATION OF ALL SIDEWALKS, RAMPS, STAIRS, ETC. ADJACENT TO THE BUILDING. NOTIFY THE PROJECT ENGINEER AND PROJECT ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
- 9. REFER TO THE GEOTECHNICAL REPORT FOR STRIPPING AND DEBRIS/ORGANIC MATERIAL REMOVAL. ANY STOCKPILE AREA(S) MUST BE APPROVED BY THE OWNER. ALL NON-CLEAN SPOILS SHALL BE DISPOSED OFF-SITE.
- 10. ALL AREAS RECEIVING FILL SHALL BE STRIPPED, SCARIFIED, COMPACTED, AND PROOF-ROLLED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PRIOR TO PLACING ANY FILL. FILL SHALL BE PLACED IN LIFTS AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- 11. TESTING SHALL BE PERFORMED BY A QUALIFIED LABORATORY CONTRACTED DIRECTLY TO THE OWNER OR DEVELOPER AND IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. ANY RE-TESTING REQUIRED DUE TO MATERIAL NOT MEETING PROJECT REQUIREMENTS SHALL BE DONE BY THE OWNER'S/DEVELOPER'S TESTING LABORATORY AT THE CONTRACTOR'S EXPENSE.

CITY OF LONE TREE
DATE
THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR GRADING IMPROVEMENTS ONLY.
ENGINEERING DIVISION ACCEPTANCE BLOCK



GRADING PLAN

JACK'S RESTAURANT

1.20 ACRES - LOT 1 PARK MEADOWS FILING 2 CITY OF LONE TREE, COLORADO

PRELIMINARY

FOR REVIEW ONLY THESE DOCUMENTS ARE FOR REVIEW ONLY AND NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMITTING. THEY HAVE BEEN PREPARED BY OR UNDER THE SUPERVISION OF DANIEL B. STEWART, P.E.

P.E. NO.: 107767

DATE: 10/11/23

00 TOWN & COUNTRY BOULEVARD, SUITE 15 FRISCO, TEXAS 75034 dec-en.com 10/11/23

ISSUE DATE DEC FILE NO. 105616 CITY FILE NO. SHEET NO. C5.1

ENGINEER

BENCHMARKS

MAG NAIL (TAG 27609) ON EAST CURB OF S. YOSEMITE STREET APPROXIMATELY 208 FEET NORTHEAST OF NORTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION: 5787.87

MAG NAIL (TAG 31158) IN CONCRETE SIDEWALK AT SOUTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION: 5802.07

INDICATED BY

- 1. INSTALL 9 LF 8" SD @ %. REF BLDG PLANS FOR CONN
- TO DOWNSPOUT. FL 8"= 5793.35.
- 2. CONNECT TO EXIST STORM @ 90°. FL 8"= ±5790.20 (VERIFY)
- 3. INSTALL 3 LF 8" SD @ 1.0%. REF BLDG PLANS FOR CONN TO DOWNSPOUT. FL 8"= 5790.79.
- 4. INSTALL 4 LF 8" SD @ 1.0%. REF BLDG PLANS FOR
- CONN TO DOWNSPOUT. FL 8"= 5791.03.

CONN TO DOWNSPOUT. FL 8"= 5793.25.

5. INSTALL 6 LF 8" SD @ 1.0%. REF BLDG PLANS FOR

SANITARY SEWER GENERAL NOTES

1"= 20'

- 1. ALL MATERIALS, CONSTRUCTION METHODS, AND TESTING FOR PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S REGULATIONS, SPECIFICATIONS, AND DETAILS. ALL MATERIALS, CONSTRUCTION METHODS, AND TESTING FOR PRIVATE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S REGULATIONS, SPECIFICATIONS, AND DETAILS UNLESS OTHERWISE NOTED ON THESE PLANS.
- 2. THE CONTRACTOR SHALL HAVE A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE WORK IS OCCURRING.
- 3. THE EXISTING UTILITIES SHOWN ON THIS PLAN REFLECT INFORMATION RECEIVED FROM OTHERS (RECORD PLANS, GROUND SURVEY, ETC.). THE PROJECT ENGINEER TAKES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION OR FOR UTILITIES FOUND THAT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES, BOTH HORIZONTALLY AND VERTICALLY, PRIOR TO THE INSTALLATION OF PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES.
- 4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES NOT BEING REMOVED. ANY REPAIR, WORK STOPPAGE, OR PENALTY INCURRED DUE TO DAMAGE TO EXISTING UTILITIES SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BONDS REQUIRED BY THE GOVERNING AUTHORITY.
- 6. PIPE MATERIAL FOR SANITARY SEWER LINES SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED OR REQUIRED BY GOVERNING **AUTHORITY:**
- 6.1. SEWER MAINS 6" AND LARGER: GREEN PVC-ASTM D 3034-SDR 35
- EMBEDMENT AND BACKFILL FOR ALL SANITARY SEWER PIPING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS OF THE GOVERNING AUTHORITY OR MANUFACTURER, WHICHEVER IS MORE STRINGENT.
- 8. SANITARY SEWER MAINS SHALL BE PLACED NO CLOSER TO ANY WATER MAIN THAN ALLOWED BY EPA, STATE, OR LOCAL REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ONE FULL JOINT (20') SANITARY SEWER PIPE SHALL BE CENTERED ON ANY WATER MAIN
- 9. ALL PIPE CONNECTIONS TO SANITARY SEWER STRUCTURES SHALL BE SEALED TO CREATE A WATER-TIGHT CONNECTION.
- 10. UNLESS NOTED OTHERWISE OR REQUIRED BY GOVERNING AUTHORITY'S SPECIFICATIONS OR DETAILS, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST STRUCTURES MANUFACTURED BY
- 11. IN PAVED AREAS, THE TOP OF ALL MANHOLE RIMS, CLEANOUT COVERS, ETC. SHALL BE FLUSH WITH THE FINAL SURFACE ELEVATION OF SURROUNDING PAVEMENT. IN UNPAVED AREAS, ALL MANHOLE RIMS, CLEANOUT COVERS, ETC. SHALL BE THREE TO SIX INCHES (3"-6") ABOVE FINAL GRADE.
- 12. REFER TO THE PAVING DETAILS FOR JOINTS AND/OR BLOCKOUTS TO BE PLACED AROUND ALL SANITARY SEWER MANHOLES.

FRANCHISE UTILITY GENERAL NOTES

- 1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE APPLICABLE UTILITY'S SPECIFICATIONS AND DETAILS.
- 2. IF REQUIRED, THE CONTRACTOR SHALL HAVE A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE WORK IS OCCURRING.
- 3. THE EXISTING UTILITIES SHOWN ON THIS PLAN REFLECT INFORMATION RECEIVED FROM OTHERS (RECORD PLANS, GROUND SURVEY, ETC.). THE PROJECT ENGINEER TAKES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION OR FOR UTILITIES FOUND THAT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES, BOTH HORIZONTALLY AND VERTICALLY, PRIOR TO THE INSTALLATION OF PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES.
- 4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES NOT BEING REMOVED. ANY REPAIR, WORK STOPPAGE, OR PENALTY INCURRED DUE TO DAMAGE TO EXISTING UTILITIES SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 5. THERE SHALL BE A MINIMUM OF 36 INCHES FROM TOP OF CONDUIT TO TOP OF FINAL SURFACE GRADE, UNLESS ADDITIONAL DEPTH IS REQUIRED BY THE UTILITY COMPANY'S SPECIFICATIONS.
- 6. EMBEDMENT AND BACKFILL SHALL BE IN ACCORDANCE WITH THE UTILITY COMPANY'S SPECIFICATIONS AND DETAILS. PRIOR TO BACKFILL OF ANY TRENCH, CONTRACTOR SHALL NOTIFY THE APPLICABLE UTILITY COMPANIES FOR INSPECTION AND OBTAIN WRITTEN APPROVAL OF ALL CONDUIT PLACEMENTS.
- 7. CONDUITS FOR FUTURE USE SHALL BE TURNED VERTICAL AND CAPPED SIX INCHES ABOVE FINAL GRADE.

WATER GENERAL NOTES

- 1. ALL MATERIALS, CONSTRUCTION METHODS, AND TESTING FOR PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S REGULATIONS, SPECIFICATIONS, AND DETAILS. ALL MATERIALS, CONSTRUCTION METHODS, AND TESTING FOR PRIVATE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S REGULATIONS, SPECIFICATIONS, AND DETAILS UNLESS OTHERWISE NOTED ON THESE PLANS.
- 2. THE CONTRACTOR SHALL HAVE A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE WORK IS OCCURRING.
- 3. THE EXISTING UTILITIES SHOWN ON THIS PLAN REFLECT INFORMATION RECEIVED FROM OTHERS (RECORD PLANS, GROUND SURVEY, ETC.). THE PROJECT ENGINEER TAKES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION OR FOR UTILITIES FOUND THAT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES, BOTH HORIZONTALLY AND VERTICALLY, PRIOR TO THE INSTALLATION OF PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES.
- 4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES NOT BEING REMOVED. ANY REPAIR, WORK STOPPAGE, OR PENALTY INCURRED DUE TO DAMAGE TO EXISTING UTILITIES SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL BONDS REQUIRED BY THE GOVERNING AUTHORITY.
- 6. PIPE MATERIAL FOR WATER LINES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE OR REQUIRED BY GOVERNING AUTHORITY:
- 6.1. WATER MAINS 6" AND LARGER: BLUE PVC-AWWA C900-CLASS 165 6.2. WATER SERVICES SMALLER THAN 6": PVC-SCH 40, OR TYPE K
- 6.3. FIRE LINES: REFER TO FIRE SPRINKLER DESIGN DRAWINGS
- 7. FIRE LINES SHALL BE INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR.
- 8. THERE SHALL BE A MINIMUM OF 42 INCHES FROM TOP OF PIPE TO TOP OF FINAL SURFACE GRADE.
- 9. EMBEDMENT AND BACKFILL FOR ALL WATER PIPING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS OF THE GOVERNING AUTHORITY OR MANUFACTURER, WHICHEVER IS MORE
- 10. WATER MAINS SHALL BE PLACED NO CLOSER TO ANY SANITARY SEWER MAIN THAN ALLOWED BY EPA, STATE, OR LOCAL REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
- 11. ALL VALVE LIDS SHALL BE ADJUSTED TO BE FLUSH WITH TOP OF FINAL PAVEMENT GRADE OR TWO INCHES ABOVE FINAL GRADE IN NON-PAVED
- 12. ALL FIRE HYDRANTS (PUBLIC AND PRIVATE) SHALL MEET THE GOVERNING AUTHORITY'S SPECIFICATIONS (MODEL, MANUFACTURER, COLOR, ETC.) FOR PUBLIC HYDRANTS. FIRE HYDRANTS SHALL BE LOCATED, BOTH HORIZONTALLY AND VERTICALLY, AND ROTATED TO MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITY.
- 13. WATER METERS SHALL BE INSTALLED PER THE GOVERNING AUTHORITY'S STANDARD DETAILS AND SPECIFICATIONS. ALL METERS PLACED BELOW THE GROUND SURFACE SHALL BE IN A COVERED BOX LOCATED THREE FEET FROM THE NEAREST BACK OF CURB OR EDGE OF PAVEMENT, OR AS REQUIRED BY THE GOVERNING AUTHORITY. THE TOP/LID OF THE BOX SHALL BE TWO INCHES ABOVE FINAL GRADE.
- 14. ALL WATER LINES SHALL BE STERILIZED AND TESTED. RESULTS SHALL MEET OR EXCEED THE GOVERNING AUTHORITY'S REQUIREMENTS.

FRANCHISE UTILITY CONTACTS

ELECTRIC: XCEL ENERGY

NATURAL GAS: XCEL ENERGY

TELECOM:

LUMEN EFREN LOPEZ 602-865-0174

efren.lopezjr@lumen.com

UTILITY PLAN

JACK'S RESTAURANT

1.20 ACRES - LOT 1 PARK MEADOWS FILING 2

CITY OF LONE TREE, COLORADO

PRELIMINARY

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00 TOWN & COUNTRY BOULEVARD, SUITE 15 FRISCO, TEXAS 75034 dec-en.com

ISSUE DATE | DEC FILE NO. 10/11/23 CITY FILE NO.

BENCHMARKS

MAG NAIL (TAG 27609) ON EAST CURB OF S. YOSEMITE STREET APPROXIMATELY 208 FEET NORTHEAST OF NORTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION: 5787.87

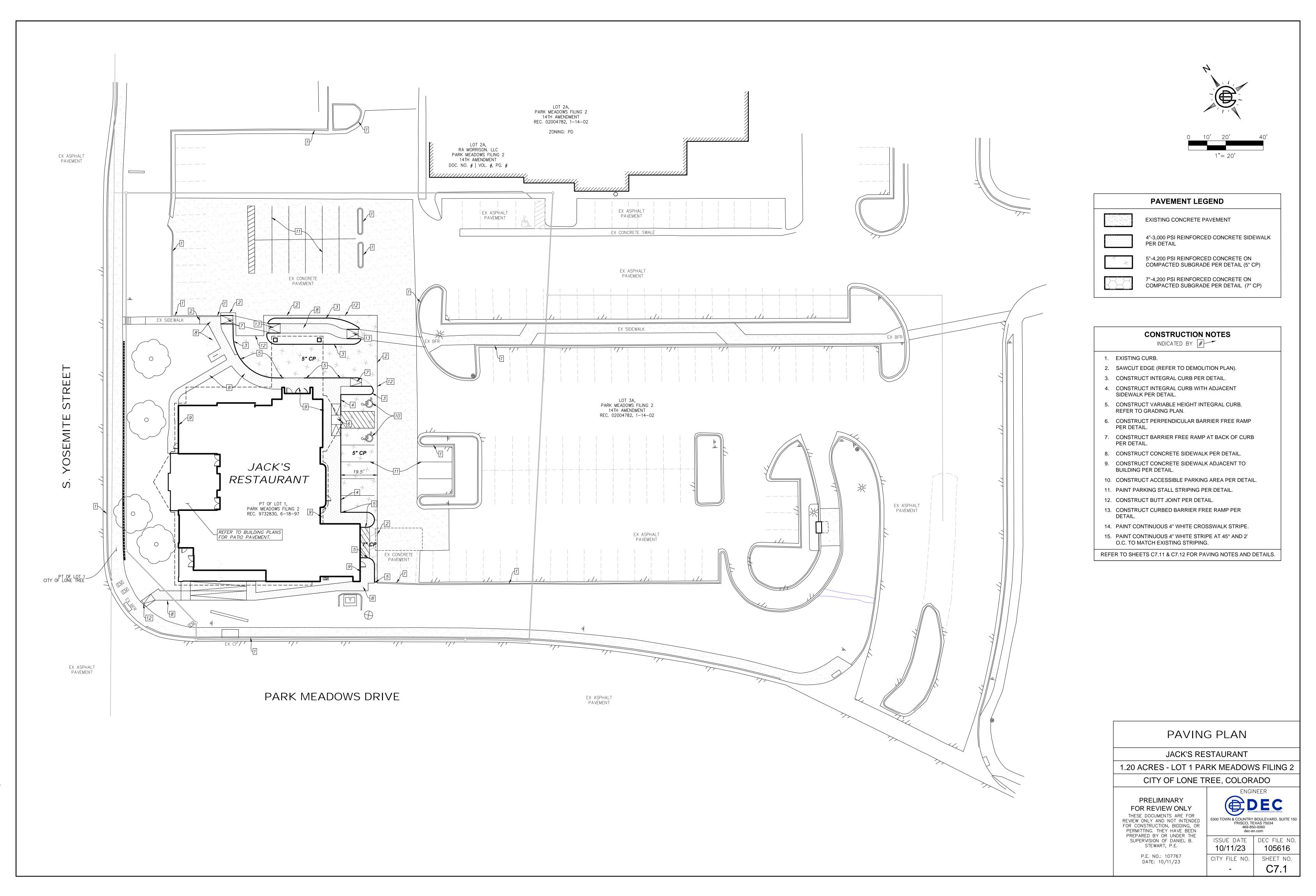
MAG NAIL (TAG 31158) IN CONCRETE SIDEWALK AT SOUTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION: 5802.07

P.E. NO.: 107767 DATE: 10/11/23

105616 SHEET NO. C6.1

ENGINEER



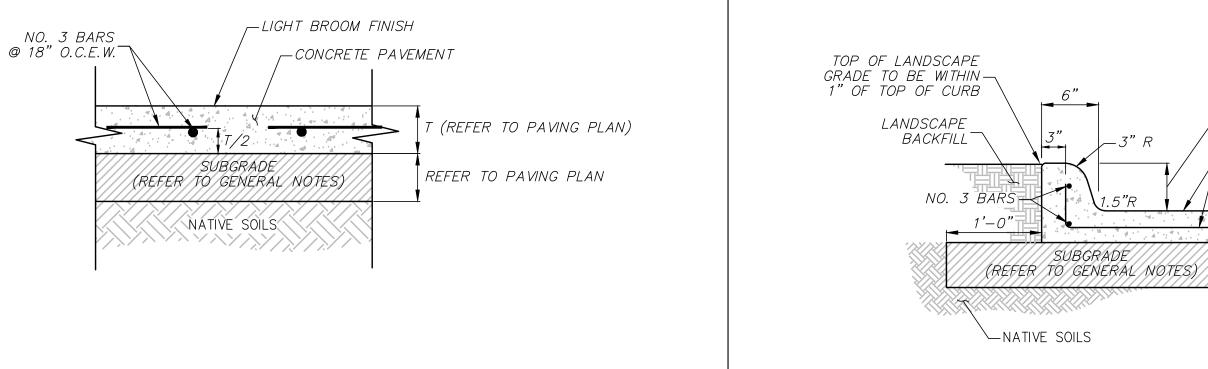
P:\UOB FILES\105616 - Jacks Lone Tree CO\DWG\105616 PAVING.dwg, Sheet 1, 1/16/2024 8:55:47 AM, Dani

PAVING GENERAL NOTES

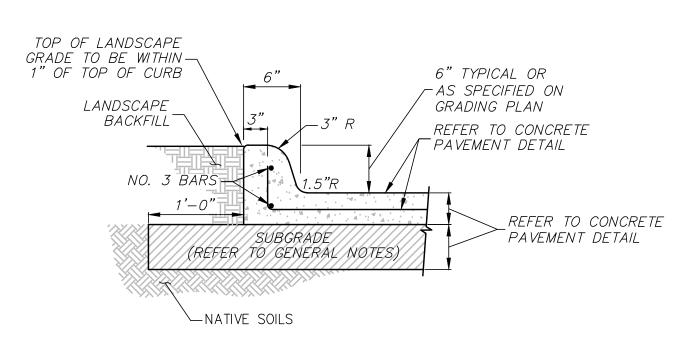
- ALL MATERIALS, CONSTRUCTION METHODS, AND TESTING FOR PAVING IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S REGULATIONS, SPECIFICATIONS, AND DETAILS UNLESS OTHERWISE NOTED ON THESE PLANS.
- 2. THE CONTRACTOR SHALL PROVIDE A TWO YEAR UNCONDITIONAL MAINTENANCE WARRANTY ON ALL PAVEMENT.
- ALL SUBGRADE SOILS SHALL BE PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THIS PROJECT PREPARED BY TERRACON, PROJECT NO. 25235076, DATED JUNE 30, 2023 AND ANY SUPPLEMENTS AND/OR AMENDMENTS. THE SUBGRADE SHALL BE PROTECTED AND MAINTAINED WITH DESIGN MOISTURE CONTENT UNTIL THE PAVEMENT HAS BEEN PLACED. DENSITY TESTS MUST BE TAKEN AFTER ANY PRECIPITATION EVENT AND NO MORE THAN 72 HOURS PRIOR TO PLACEMENT OF PAVEMENT.
- 4. THE USE OF LEVELING SAND UNDER CONCRETE PAVEMENT IS PROHIBITED.
- ALL PAVEMENT SHALL BE CONSTRUCTED TO THE THICKNESS AND MINIMUM STRENGTH SHOWN ON THE PAVING PLAN. ALL STRENGTHS FOR CONCRETE PAVEMENTS SHALL BE 28 DAY COMPRESSIVE STRENGTH, UNLESS OTHERWISE NOTED. CONCRETE SHALL HAVE A WATER-TO-CEMENT RATIO TO ACHIEVE A SLUMP BETWEEN THREE INCHES AND FIVE INCHES. CONCRETE SHALL BE ENTRAINED WITH 4.5 PERCENT AIR, WITH AN ACCEPTABLE DEVIATION OF 1.5 PERCENT (4.5% ±1.5%).
- 6. ALL REINFORCING BARS AND DOWELS SHALL BE UNCOATED 60 KSI STEEL BARS.
- ALL REINFORCING BARS AND DOWELS MUST BE SUPPORTED WITH BAR CHAIRS.
- 8. CONCRETE SHALL NOT BE PLACED WHEN THE OUTSIDE AMBIENT TEMPERATURE IS LESS THAN 40 DEGREES FAHRENHEIT, RAIN IS FALLING, OR RAIN IS IMMINENT. TEMPERATURE READINGS SHALL BE TAKEN IN THE SHADE AWAY FROM ANY ARTIFICIAL HEAT OR COOLING SOURCE.
- 9. CONCRETE SHALL BE POURED IN SECTIONS NOT TO EXCEED THIRTY FEET IN WIDTH, UNLESS PUMPED.
- 10. ALL CONCRETE PAVEMENT SURFACES SHALL BE FINISHED WITH A LIGHT BROOM FINISH AND ALLOWED TO CURE FOR A MINIMUM OF 72 HOURS PRIOR TO PLACEMENT OF ANY LOADING. THE CONCRETE SURFACE SHALL BE PROTECTED IN WINDY CONDITIONS TO PREVENT SURFACE CRACKING.
- 11. THE CONTRACTOR SHALL PREPARE A JOINT LAYOUT PLAN AND PROVIDE IT TO THE DESIGN ENGINEER FOR REVIEW A MINIMUM OF ONE WEEK PRIOR TO PAVING. THE JOINT PATTERN SHALL AVOID IRREGULAR SHAPES AND PLACEMENT OF JOINTS ALONG SWALE/VALLEY LINES. THE MAXIMUM JOINT SPACING SHALL BE:
- 11.1. CONTROL JOINTS: 5" PAVEMENT 12.5 FEET 6" PAVEMENT - 15 FEET 7" PAVEMENT - 17.5 FEET

11.2. EXPANSION JOINTS: 90 FEET

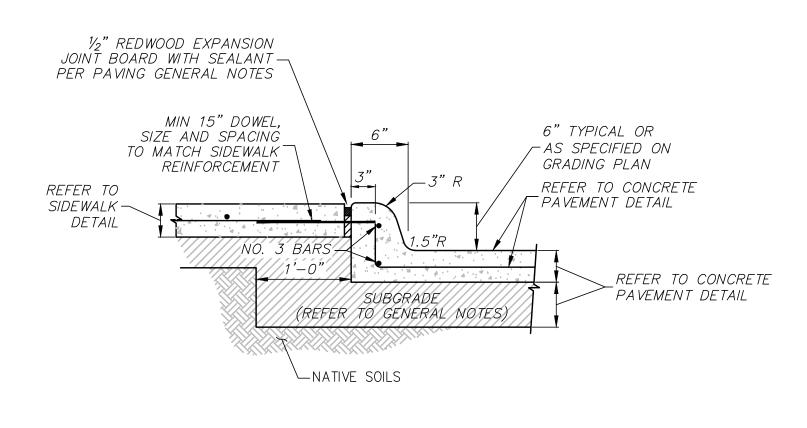
- 12. SAW CUTTING OF JOINTS SHALL BE DONE AS SOON AS IT CAN SUPPORT THE WEIGHT OF SAWCUTTING EQUIPMENT, AND WITHIN EIGHT HOURS OF THE CONCRETE BEING POURED. NO JOINT SHALL BE SHORTER THAN EIGHTEEN INCHES (1'-6").
- 13. ALL SLURRY AROUND SAW JOINTS SHALL BE CLEANED IMMEDIATELY. ONCE DRY AND WITHIN 48 HOURS, ALL JOINTS TO RECEIVE SEALANT SHALL BE CLEANED OF DIRT, DUST, DEBRIS, ETC. AND SEALED. SEALANT IN VEHICULAR AREAS SHALL BE HOT POURED RUBBER JOINT SEALING COMPOUND. SEALANT IN SIDEWALK AREAS AND ADJACENT TO STRUCTURES SHALL BE A LIGHT GRAY (TO MATCH PAVEMENT COLOR) SILICONE BASED, SELF LEVELING SEALANT. SEALANT SHALL BE PLACED TO WITHIN $\frac{1}{4}$ " OF THE TOP OF PAVEMENT.
- 14. UNLESS NOTED OTHERWISE, ALL EXPANSION JOINT MATERIAL SHALL BE PLACED SO THAT THE TOP OF THE FILLER MATERIAL IS ONE INCH BELOW THE TOP OF PAVEMENT.
- 15. ALL CURBS AND PAVEMENT BEING PLACED ADJACENT TO EXISTING CURBS AND/OR PAVEMENTS SHALL MATCH THE SURFACE ELEVATION/SHAPE OF THE EXISTING CURB AND/OR PAVEMENT.
- 16. ALL PAVEMENT MARKINGS SHALL BE WHITE, UNLESS OTHERWISE NOTED OR REQUIRED BY GOVERNING AUTHORITY. MARKINGS SHALL BE PAINTED WITH TWO COATS OF UNDILUTED LATEX TRAFFIC PAINT AT THE MANUFACTURER'S RECOMMENDED APPLICATION RATE. THE SECOND COAT SHALL BE APPLIED NO MORE THAN SEVEN DAYS PRIOR TO USE BY THE GENERAL PUBLIC. MARKINGS SHALL HAVE SHARP EDGES AND A CONSISTENT COLOR. MARKINGS PERPENDICULAR TO CURB LINES SHALL BE PAINTED UP TO THE BOTTOM FACE OF THE CURB.
- 17. REFER TO THE IRRIGATION PLAN. SITE LIGHTING PLAN. AND/OR FRANCHISE UTILITY PLAN(S) FOR CONDUIT REQUIREMENTS. ALL CONDUITS SHALL BE PLACED PRIOR TO SUBGRADE BEING PREPARED.
- 18. TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY CONTRACTED DIRECTLY WITH THE OWNER/DEVELOPER. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE OWNER/DEVELOPER. ANY TESTS INDICATING PAVEMENT FAILING TO MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. ALL COSTS OF RE-TESTING SHALL BE REIMBURSED BY THE CONTRACTOR.
- 19. ALL PAVEMENT SURFACES SHALL BE POWER WASHED TO REMOVE DIRT, DEBRIS, STAINS, ETC. AFTER ALL CONSTRUCTION EQUIPMENT AND MATERIAL HAVE BEEN REMOVED FROM THE PAVEMENT SURFACE, AND PRIOR TO OPENING TO THE GENERAL PUBLIC.
- 20. DETECTABLE WARNING SURFACES SHALL BE ALERTCAST REPLACEABLE CAST-IN-PLACE DETECTABLE WARNING MAT, COLONIAL RED, MANUFACTURED BY DECTABLE WARNING SYSTEMS OR APPROVED EQUIVALENT.



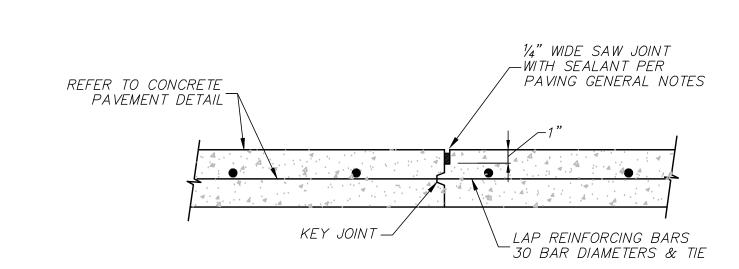
CONCRETE PAVEMENT



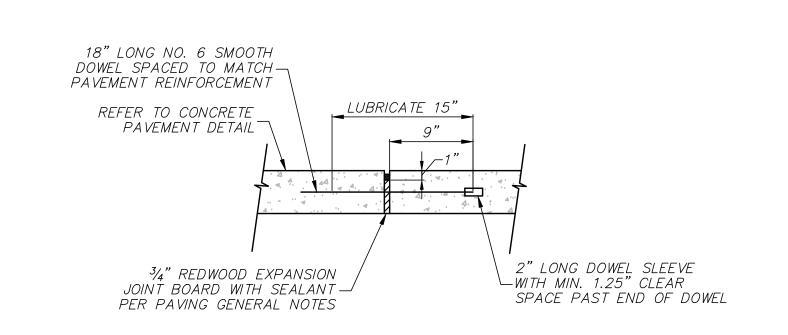
INTEGRAL CURB



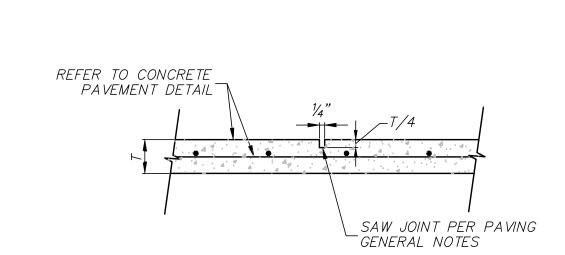
INTEGRAL CURB WITH ADJACENT SIDEWALK



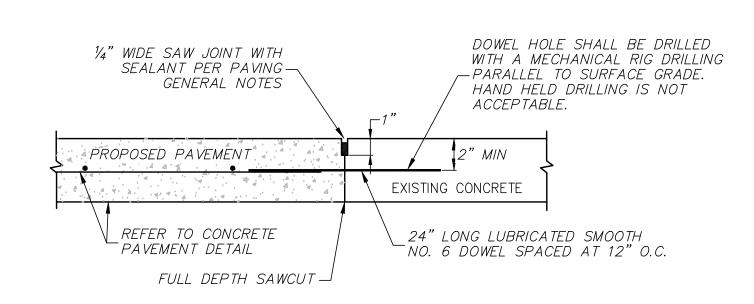
CONSTRUCTION JOINT



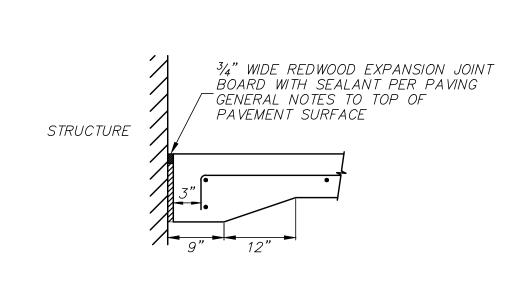
EXPANSION JOINT



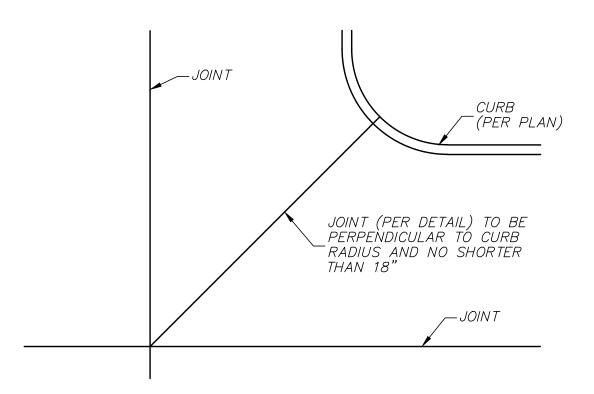
CONTROL JOINT



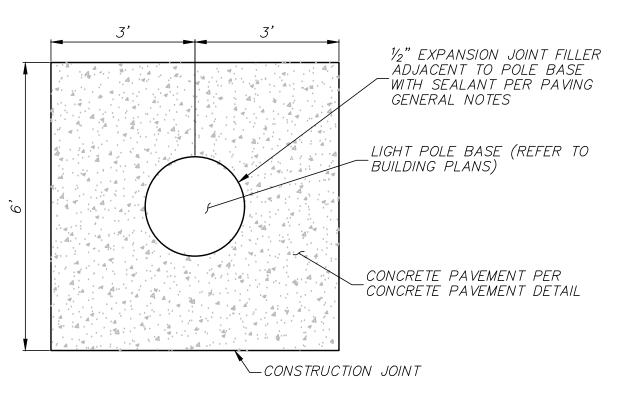
BUTT JOINT



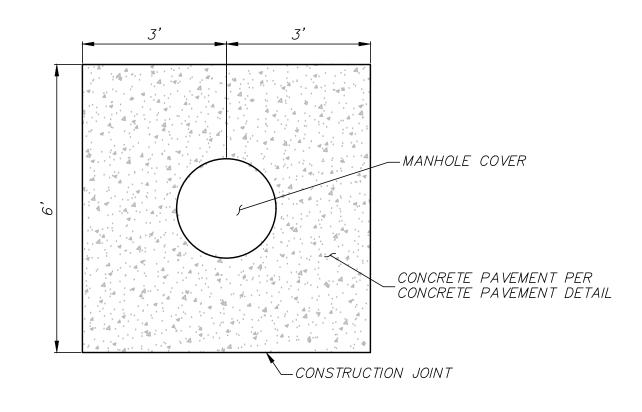
PAVEMENT ISOLATION JOINT



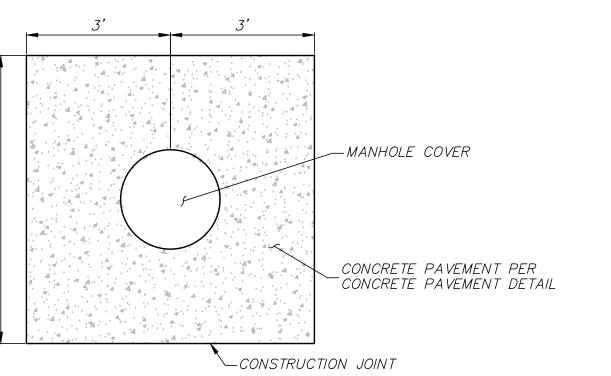
JOINT AT RADIAL CURB



LIGHT POLE BLOCKOUT



MANHOLE BLOCKOUT



DETAILS ON THIS SHEET ARE NOT TO SCALE.

DETAILS AND NOTES ARE FOR PAVING IMPROVEMENTS ON PRIVATE PROPERTY. ALL IMPROVEMENTS IN PUBLIC RIGHT-OF-WAY AND EASEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S STANDARDS AND REGULATIONS.

PAVING DETAILS

JACK'S RESTAURANT 1.20 ACRES - LOT 1 PARK MEADOWS FILING 2

CITY OF LONE TREE, COLORADO

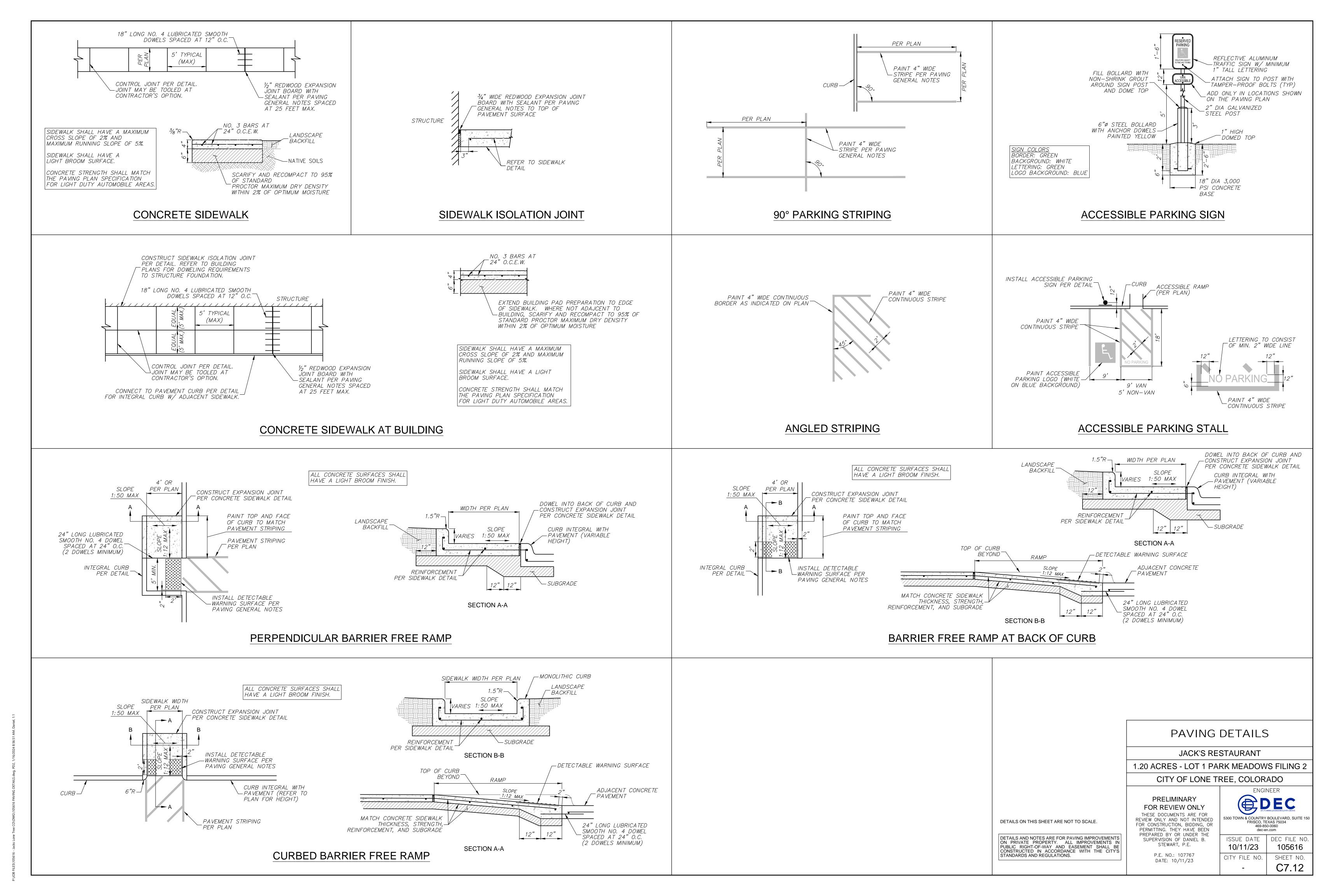
FOR REVIEW ONLY PREPARED BY OR UNDER THE STEWART, P.E. P.E. NO.: 107767

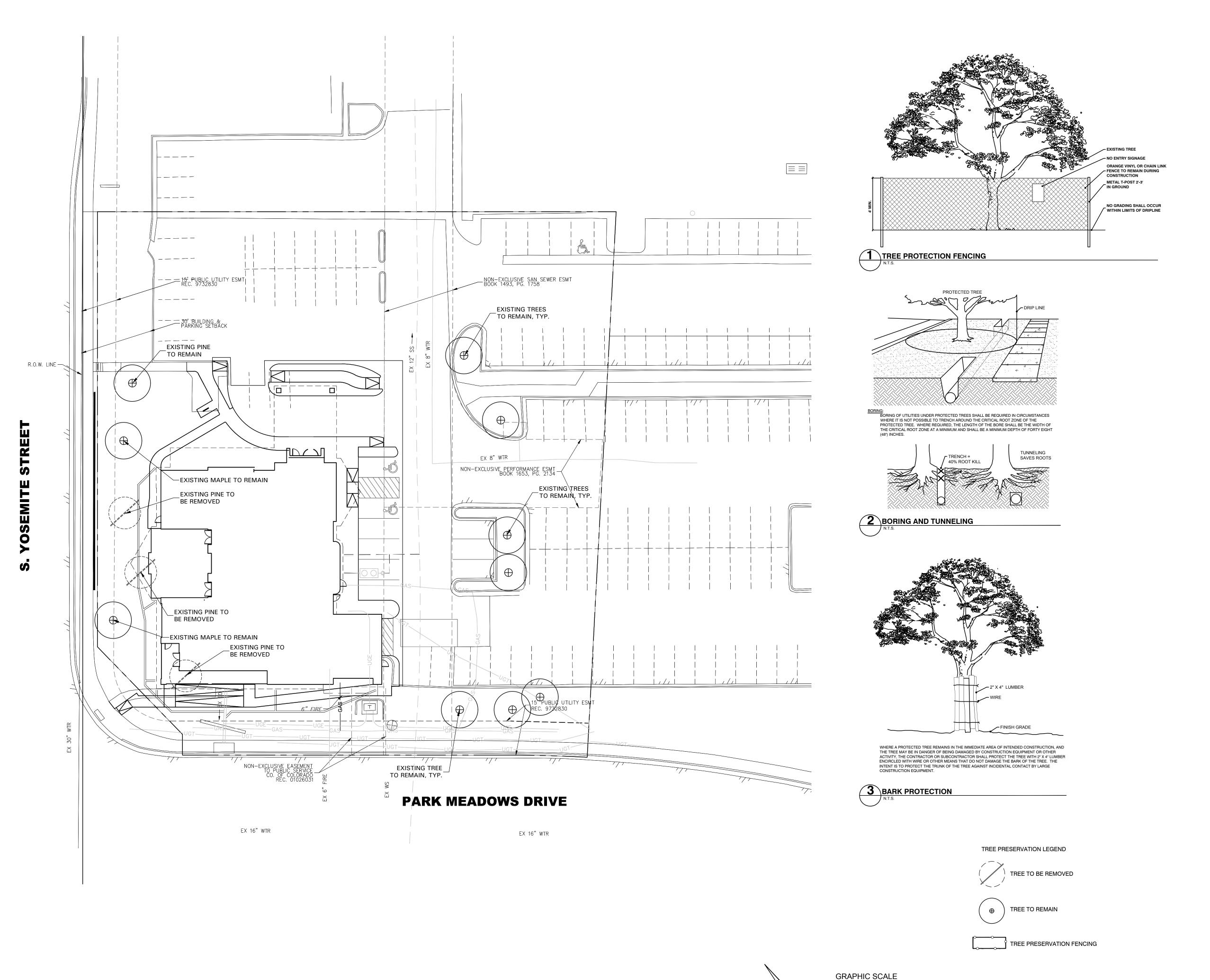
DATE: 10/11/23

PRELIMINARY THESE DOCUMENTS ARE FOR REVIEW ONLY AND NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMITTING. THEY HAVE BEEN SUPERVISION OF DANIEL B.

ENGINEER 00 TOWN & COUNTRY BOULEVARD, SUITE 15 FRISCO, TEXAS 75034 dec-en.com ISSUE DATE DEC FILE NO.

10/11/23 105616 CITY FILE NO SHEET NO.





TREE PRESERVATION NOTES

CONSTRUCTION METHODS:

BORING: BORING OF UTILITIES UNDER PROTECTED TREES MAY BE REQUIRED. WHEN REQUIRED, THE MINIMUM LENGTH OF THE BORE SHALL BE THE WIDTH OF THE CRITICAL ROOT ZONE AND SHALL BE A MINIMUM DEPTH OF FORTY (48)

TRENCHING: ALL TRENCHING SHALL BE DESIGNED TO AVOID TRENCHING ACROSS CRITICAL ROOT ZONES OF ANY PROTECTED TREE. THE PLACEMENT OF UNDERGROUND UTILITY LINES SUCH AS ELECTRIC, PHONE, GAS, ETC., IS ENCOURAGED TO BE LOCATED OUTSIDE THE CRITICAL ROOT ZONE. TRENCHING FOR IRRIGATION SYSTEMS SHALL BE PLACED OUTSIDE THE CRITICAL ROOT ZONE EXCEPT THE MINIMUM REQUIRED SINGLE HEAD SUPPLY LINE. THIS LINE IS ALLOWED TO EXTEND INTO THE CRITICAL ROOT ZONE PERPENDICULAR TO THE TREE TRUNK WITH THE LEAST POSSIBLE

TREES TO BE REMOVED: ALL TREES TO BE REMOVED FROM THE SITE SHALL BE FLAGGED BY THE CONTRACTOR WITH BRIGHT RED VINYL TAPE WRAPPED AROUND THE MAIN TRUNK AT A HEIGHT OF FOUR (4') FEET ABOVE GRADE.

TREES TO REMAIN: ALL TREES TO REMAIN, AS NOTED ON DRAWINGS, SHALL HAVE PROTECTIVE FENCING LOCATED AT THE TREE'S DRIP LINE. THE PROTECTIVE FENCING SHALL BE LOCATED AS INDICATED ON THE TREE

EXISTING TREES NOTED TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION FROM DAMAGE AND COMPACTION OF SOIL UNDER AND AROUND DRIP LINE OF TREE.

UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR PRUNE ANY PORTION OF THE DAMAGED TREE WITHOUT THE PRIOR APPROVAL BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

PROHIBITED ACTIVITIES IN CRITICAL ROOT ZONE:
THE FOLLOWING ACTIVITIES ARE PROHIBITED IN THE AREAS NOTED AS THE CRITICAL ROOT ZONE.

MATERIAL STORAGE: NO MATERIALS INTENDED FOR USE IN CONSTRUCTION, OR WASTE MATERIALS ACCUMULATED DUE TO EXCAVATION OR DEMOLITION, SHALL BE PLACED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY

EQUIPMENT CLEANING/LIQUID DISPOSAL: NO EQUIPMENT SHALL BE CLEANED, OR OTHER LIQUIDS DEPOSITED OR ALLOWED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF A PROTECTED TREE. THIS INCLUDES, WITHOUT LIMITATION: PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR OR SIMILAR

TREE ATTACHMENTS: NO SIGNS, WIRES, OR OTHER ATTACHMENTS, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY

VEHICULAR TRAFFIC: NO VEHICULAR AND/OR CONSTRUCTION, EQUIPMENT, TRAFFIC, OR PARKING SHALL TAKE PLACE WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY PROTECTED TREE OTHER THAN ON EXISTING STREET

GRADE CHANGES: 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.

PROCEDURES REQUIRED PRIOR TO CONSTRUCTION:
PROTECTIVE FENCING: PRIOR TO CONSTRUCTION, THE CONTRACTOR OR SUBCONTRACTOR SHALL CONSTRUCT AND MAINTAIN, FOR EACH PROTECTED TREE ON A CONSTRUCTION SITE, A PROTECTIVE FENCING WHICH ENCIRCLES THE OUTER LIMITS OF THE CRITICAL ROOT ZONE OF THE TREE TO PROTECT IT FROM CONSTRUCTION ACTIVITY. ALL PROTECTIVE FENCING SHALL BE IN

PLACE PRIOR TO COMMENCEMENT OF ANY SITE WORK, AND REMAIN IN PLACE

UNTIL ALL EXTERIOR WORK HAS BEEN COMPLETED.

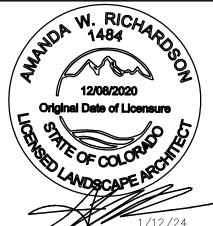
BARK PROTECTION: IN SITUATIONS WHERE A PROTECTED TREE REMAINS IN THE IMMEDIATE AREA OF INTENDED CONSTRUCTION, AND THE LANDSCAPE ARCHITECT OR OWNERS'S REPRESENTATIVE DETERMINES THE TREE BARK TO BE IN DANGER OF DAMAGE BY CONSTRUCTION EQUIPMENT OR OTHER ACTIVITY, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROTECT THE TREE BY ENCLOSING THE ENTIRE CIRCUMFERENCE OF THE TREE WITH 2"X4" LUMBER ENCIRCLED WITH WIRE OR OTHER MEANS THAT DO NOT DAMAGE THE TREE. THE INTENT IS TO PROTECT THE BARK OF THE TREE AGAINST INCIDENTAL CONTACT BY LARGE CONSTRUCTION EQUIPMENT.

TREE PRESERVATION PLAN

JACK'S RESTAURANT

9155 PARK MEADOWS DRIVE

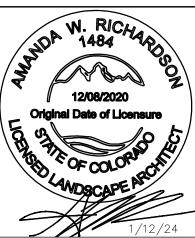
CITY OF LONE TREE, COLORADO



AWR Designs, LLC P.O. Box 1746 Aledo, Texas 76008

c. 512.517.5589

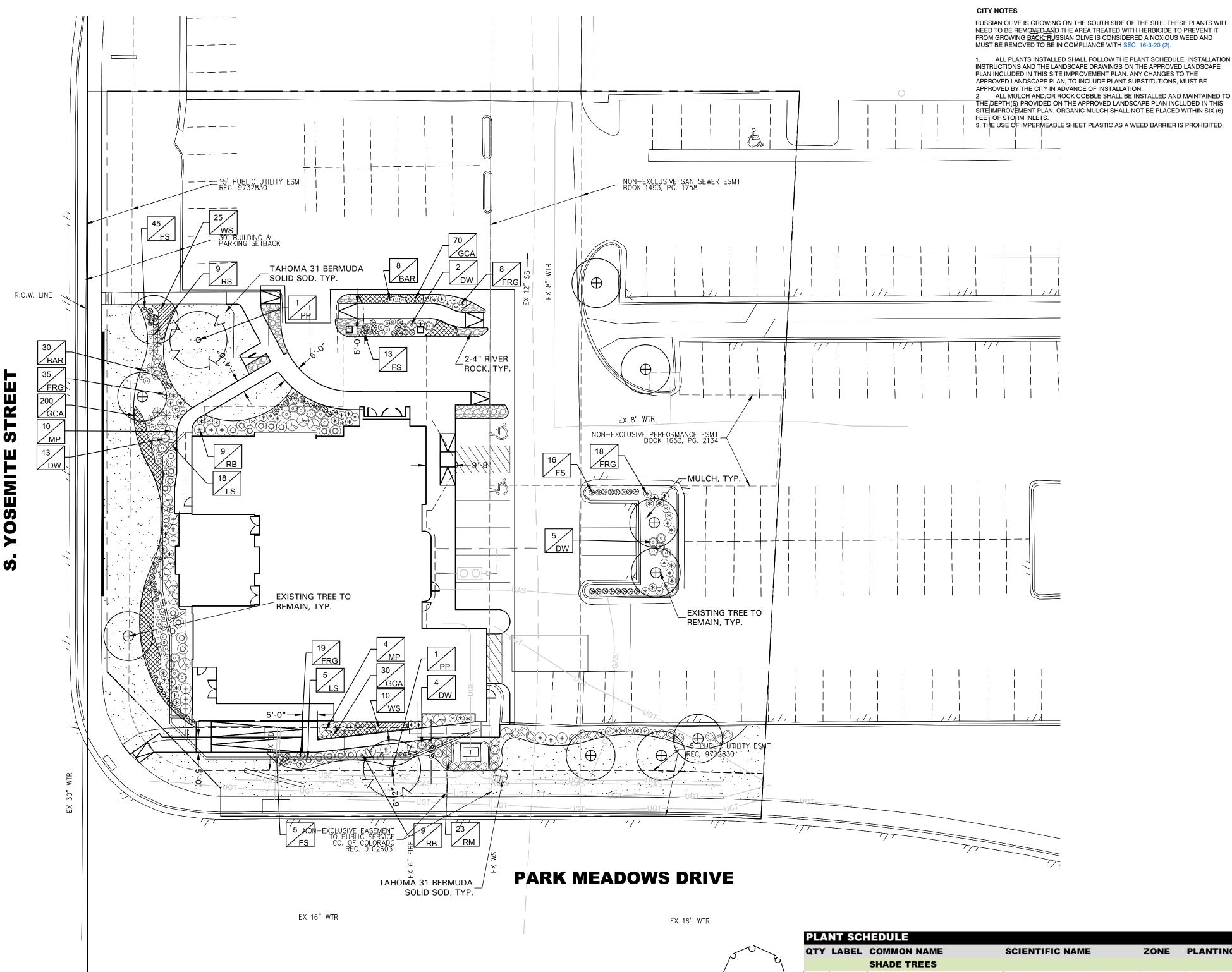
amanda@awr-designs.com





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GENERAL LAWN NOTES

- 1. CONTRACTOR SHALL COORDINATE OPERATIONS AND AVAILABILITY OF EXISTING TOPSOIL WITH ON-SITE CONSTRUCTION MANAGER
- TO TOPSOIL INSTALLATION. 3. CONTRACTOR TO FIND GRADE AREAS TO ACHIEVE FINAL CONTOURS AS SHOWN ON CIVIL DRAWINGS. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. ROUNDING AT TOP AND BOTTOM OF SLOPES SHALL BE PROVIDED AND IN OTHER BREAKS IN GRADE, CORRECT AREAS WHERE STANDING WATER MAY OCCUR.

2. LAWN AREAS SHALL BE LEFT 1" BELOW FINAL FINISHED GRADE PRIOR

- 4. ALL LAWN AREAS SHALL BE FINE GRADED, IRRIGATION TRENCHES COMPLETELY SETTLED AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR LANDSCAPE ARCHITECT PRIOR TO LAWN INSTALLATION.
- 5. CONTRACTOR SHALL REMOVE ALL ROCKS 3/4" IN DIAMETER AND LARGER. REMOVE ALL DIRT CLODS, STICKS, CONCRETE SPOILS, TRASH ETC PRIOR TO PLACING TOPSOIL AND GRASS INSTALLATION. 6. CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL
- CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT IF NECESSARY.

- SOLID SOD:

 1. SOLID SOD SHALL BE PLACED ALONG ALL IMPERVIOUS EDGES, AT A MINIMUM. THIS SHALL INCLUDE CURBS, WALKS, INLETS, MANHOLES AND PLANTING BED AREAS. SOD SHALL COVER OTHER AREAS COMPLETELY AS INDICATED BY PLAN.
- 2. SOD SHALL BE STRONGLY ROOTED DROUGHT RESISTANT SOD, NOT LESS THAN 2 YEARS OLD, FREE OF WEEDS AND UNDESIRABLE NATIVE GRASS AND MACHINE CUT TO PAD THICKNESS OF 3/4" (+1/4"), EXCLUDING TOP GROWTH AND THATCH. 3. LAY SOD BY HAND TO COVER INDICATED AREAS COMPLETELY,
- ENSURING EDGES ARE TOUCHING WITH TIGHTLY FITTING JOINTS, NO OVERLAPS WITH STAGGERED STRIPS TO OFFSET JOINTS.
- 4. TOP DRESS JOINTS IN SOD BY HAND WITH TOPSOIL TO FILL VOIDS IF NECESSARY
- 5. SOD SHALL BE ROLLED TO CREATE A SMOOTH EVEN SURFACE. SOD SHOULD BE WATERED THOROUGHLY DURING INSTALLATION PROCESS.
- 6. SHOULD INSTALLATION OCCUR BETWEEN OCTOBER 1ST AND MARCH 1ST, OVERSEED BERMUDAGRASS SOD WITH WINTER RYEGRASS AT A RATE OF 4 POUNDS PER 1000 S.F.

HYDROMULCH:

- 1. SCARIFY AND LOOSEN ALL AREAS TO BE HYDROMULCHED TO A MINIMUM DEPTH OF 4" PRIOR TO TOPSOIL AND HYDROMULCH
- INSTALLATION. 2. BERMUDA GRASS SEED SHALL BE EXTRA HULLED, TREATED LAWN TYPE. SEED SHALL BE DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AND SHALL MEET ALL STATE/LOCAL LAW
- REQUIREMENTS. 3. FIBER SHALL BE 100% WOOD CELLULOSE FIVER, DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AS MANUFACTURED BY 'CONWEB' OR EQUAL.
- 4. FIBER TACK SHALL BE DELIVERED TO THE SITE IN ITS UNOPENED CONTAINER AND SHALL BE 'TERRO-TACK ONE', AS MANUFACTURED
- BY GROWERS, INC OR APPROVED EQUAL. 5. HYDROMULCH WITH BERMUDA GRASS SEET AT A RATE OF 2 POUNDS
- 6. USE A BATTER BOARD AGAINST ALL BED AREAS TO PREVENT OVER
- NECESSARY FOR OPTIMUM MOISTURE FOR SEED APPLICATION. 8. IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1ST AND MAY 1ST, ALL HYDORMULCH AREAS SHALL BE OVER-SEEDED WITH WINTER RYE GRASS AT A RATE OF FOUR POUNDS PER ONE THOUSAND SQUARE FEET. CONTRACTOR SHALL BE REQUIRED TO RE-HYDROMULCH WITH BERMUDA GRASS THE FOLLOWING

10. ALL LAWN AREAS TO BE HYDROMULCHED SHALL ACHIEVE 100%

7. IF INADEQUATE MOISTURE IS PRESENT IN SOIL, APPLY WATER AS

GROWING SEASON AS PART OF THIS CONTRACT. 9. AFTER APPLICATION, NO EQUIPMENT SHALL OPERATE OVER APPLIED AREAS. WATER SEEDED AREAS IMMEDIATELY AFTER

INSTALLATION TO SATURATION.

COVERAGE PRIOR TO FINAL ACCEPTANCE.

LANDSCAPE TABULATIONS for Lone Tree, CO

GENERAL 1. 15% of the site shall be landscaped.

Site: 51,968 s.f.

7795 (15%) 13402 s.f. (25.7%)

PARKING LOT LANDSCAPE 1. No more than 15 spaces shall be without an intervening canopy

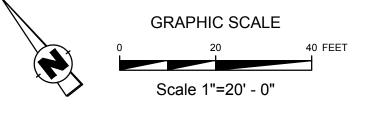
tree in an island. 2. A minimum 8' wide landscape islands shall be provided and

must contain 1 canopy tree along with shrubs and or ornamental

Parking Spaces: 46

ZONE PLANTING SIZE SIZE AT MATURITY WATER USE % Zone 3-7 | 3" cal.; 12' ht., 4' spread, balled and burlap | 120' h x 30' w 16.67% Ponderosa Pine Pinus ponderosa Existing Trees TOTAL 38 BAR Japanese Barberry 'Rosy Rocket' | Berberis thunbergii 'Rosy Rocket | Zone 4-8 | 5 gal.; full, 20" sprd, 24" o.c. 3-4' ht, 1-2' w low 16.59% 10.48% Artic Fire Red Twig Dogwood Zone 2-7 5 gal.; full, 24" sprd, 36" o.c. 4-5' ht, 4-5' w Cornus stolonifera 'Farrow' medium 80 FRG Feather Reed Grass Calamagrostis acutiflora Zone 4-9 | 5 gal.; full, 18" spread, 24" o.c. 2-6' ht, 2' w medium to low 34.93% 23 LS Lilla Smoke Bush Cotinus coggyria 'Lilla' Zone 4-8 | 7 gal.; full, 30" sprd, 40" o.c. 4' ht, 4' w medium to low 10.04% 14 MP Zone 4-8 | 7 gal.; full, 48" o.c. 3-6' ht. 3-6' w medium 6.11% Weigela Weigela 18 RB Rubber Rabbitbush Zone 4-9 | 7 gal.; full, 30" sprd, 40" o.c. 3-9' ht, 3-9' w Ericameria nauseosa' 3-4' ht, 2-3' w 23 RM 10.04% Rosemarinus Hill's Hardy Zone 6-10 5 gal.; full, 24" sprd, 36" o.c. Zone 4-9 | 5 gal.; full, 24" sprd, 36" o.c. 4' ht, 4' w 3.93% 9 RS Perovskia atriplicifolia Russian Sage 'Blue Spire' low TOTAL GROUNDCOVER/VINES/GRASS 79 FS Fringed Sage Artemisia frigida Zone 3-8 | 1 gal.; full, 18" o.c. 15" ht, 24" w. 19.08% 300 GCA Golden Child Arborvitae Thuja occidentalis 'Mirjam' Zone 4-8 | 1 gal.; full, 12" o.c. 18-24" ht, 18-24" w 72.46% 8.45% Wynanda Scotch Heather Calluna vulgaris 'Wynanda' Zone 4-8 | 1 gal.; full, 18" o.c. 15-18" ht, 18-24" w | medium to low 35 WS 6074 s.f. Tahoma 31 Bermuda Solid Sod Cynodon dactylon 272 s.f. River Rock TOTAL

Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. Trees shall have a strong central leader and be of matching specimens. All plant material shall meet or exceed remarks as indicated.





LANDSCAPE NOTES

- 1. CONTRACTOR TO VERIFY AND LOCATE ALL PROPOSED AND EXISTING ELEMENTS, NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE FOR ANY LAYOUT DISCREPANCIES OR ANY CONDITION THAT WOULD PROHIBIT THE INSTALLATION AS SHOWN. SURVEY DATA OF
- EXISTING CONDITIONS WAS SUPPLIED BY OTHERS 2. CONTRACTOR SHALL CALL 811 TO VERIFY AND LOCATE ANY AND ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF ANY CONFLICTS. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR UNDERGROUND
- 3. A MINIMUM OF 2% SLOPE SHALL BE PROVIDED AWAY FROM ALL
- STRUCTURES. 4. 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.
- 5. LANDSCAPE ISLANDS SHALL BE CROWNED, AND UNIFORM THROUGHOUT
- 6. PLANTING AREAS AND SOD TO BE SEPARATED BY STEEL EDGING. NO
- STEEL EDGING SHALL BE INSTALLED ADJACENT TO BUILDINGS, WALKS OR CURBS. EDGING NOT TO BE MORE THAN 1/2" ABOVE FINISHED GRADE.
- 7. EDGING SHALL BE CUT AT 45 DEGREE ANGLE WHERE IT INTERSECTS WALKS AND/OR CURBS
- 8. MULCH SHALL BE INSTALLED AT 1/2" BELOW THE TOPS OF SIDEWALKS AND CURBING 9. QUANTITIES ON THESE PLANS ARE FOR REFERENCE ONLY. THE SPACING
- OF PLANTS SHOULD BE AS INDICATED ON PLANS OR OTHERWISE NOTED. ALL TREES AND SHRUBS SHALL BE PLANTED PER DETAILS.
- 10. CONTAINER GROWN PLANT MATERIAL IS PREFERRED HOWEVER BALL AND BURLAP PLANT MATERIAL CAN BE SUBSTITUTED IF NEED BE AND IS APPROPRIATE TO THE SIZE AND QUALITY INDICATED ON THE PLANT
- MATERIAL LIST 11. TREES SHALL BE PLANTED AT A MINIMUM OF 5' FROM ANY UTILITY LINE, SIDEWALK OR CURB. TREES SHALL ALSO BE 10' CLEAR FROM FIRE
- 12. 4" OF SHREDDED HARDWOOD MULCH (2" SETTLED THICKNESS) SHALL BE PLACED OVER WEED BARRIER FABRIC. MULCH SHALL BE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL, PINE STRAW MULCH IS
- 13. WEED BARRIER FABRIC SHALL BE USED IN PLANT BEDS AND AROUND ALL TREES AND SHALL BE MIRAFI 1405 WEED BARRIER OR APPROVED EQUAL.
- 14. CONTRACTOR TO PROVIDE UNIT PRICING OF LANDSCAPE MATERIALS AND BE RESPONSIBLE FOR OBTAINING ALL LANDSCAPE AND IRRIGATION

IRRIGATION:

1. ALL REQUIRED LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE/RAIN SENSOR. SYSTEM SHALL ALSO HAVE AN ET WEATHER BASED CONTROLLER AND BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATOR.

- MAINTENANCE REQUIREMENTS:

 1. VEGETATION SHOULD BE INSPECTED REGULARLY TO ENSURE THAT PLANT MATERIAL IS ESTABLISHING PROPERLY AND REMAINS IN A HEALTHY GROWING CONDITION APPROPRIATE FOR THE SEASON. IF DAMAGED OR REMOVED, PLANTS MUST BE REPLACED BY A SIMILAR VARIETY AND SIZE
- 2. MOWING, TRIMMING, EDGING AND SUPERVISION OF WATER APPLICATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE OWNER OR OWNER'S REPRESENTATIVE ACCEPTS AND ASSUMES REGULAR MAINTENANCE
- 3. ALL LANDSCAPE AREAS SHOULD BE CLEANED AND KEPT FREE OF TRASH, DEBRIS, WEEDS AND OTHER MATERIAL.

SCELLANEOUS MATERIALS: . STEEL EDGING SHALL BE 3/16" X 4 X 16' DARK GREEN DURAEDGE

BEFORE INSTALLATION.

DO NOT 'TOP' OR 'HEAD' TREES.

STEEL LANDSCAPE EDGING UNLESS NOTED OTHERWISE ON PLANS/DETAILS.

- 2. RIVER ROCK SHALL BE ARIZONA RIVER ROCK, 2" 4" DIAMETER. RIVER ROCK SHALL BE COMPACTED TO A MINIMUM OF 3" DEPTH OVER
- FILTER FABRIC. . DECOMPOSED GRANITE SHALL CONSIST OF A NATURAL MIX OF GRANITE AGGREGATE NOT TO EXCEED 1/8" IN DIAMETER AND COMPOSED OF VARIOUS STAGES OF DECOMPOSED EARTH BASE. DG
- SHALL BE PLACED OVER FILTER FABRIC AT A MINIMUM OF 3" DEPTH. 4. BOULDERS SHALL BE ON AVERAGE 36" X 24" X 24" AND A MIN. OF 500LBS. BOULDER TO BE SET IN GROUND ON A 1" SAND SETTING BED. APPROXIMATELY 2" BELOW FINISH GRADE. BOULDER SHOULD HAVE A WEATHERED FINISH. EACH BOULDER HAS A NATURAL TOP AND BOTTOM. ENSURE THAT THE BOULDER IS POSITIONED CORRECTLY

PRUNING AND TRIMMING NOTES

- CONTRACTOR SHALL PRUNE ALL EXISTING TREES ON-SITE USING STANDARD GUIDELINES IN THE INDUSTRY. ALL TREES SHALL BE TRIMMED SO THAT NATURAL SHAPES OF THE PLANTS ARE RETAINED.
- . IF BALLING OR SHEARING OF TREES HAS OCCURRED IN THE PAST, DISCONTINUE THIS PRACTICE AND ALLOW PLANTS TO GROW INTO NATURAL
- 5. 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

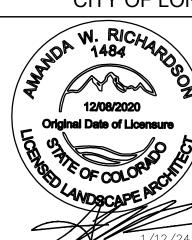
- LOWER LIMBS TO RAISE THE CANOPY. THE BOTTOM OF THE CANOPY SHALL BE RAISED TO 12'-0" ABOVE GRADE FOR DECIDIOUS HARDWOOD TREES. WHEN POSSIBLE. THE INTEGRITY OF THE CANOPY AND STRUCTURE OF THE REE SHALL BE MAINTAINED. DO NOT CUT OR PRUNE CENTRAL LEADERS.
- CONTRACTOR SHALL THIN THE CANOPY BY ONE-FOURTH. 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.
- 9. CONTRACTOR SHALL BE REQUIRED TO CHIP ALL REMOVED BRANCHES,

LANDSCAPE PLAN

JACK'S RESTAURANT

9155 PARK MEADOWS DRIVE

CITY OF LONE TREE, COLORADO





DEC FILE NO. SSUE DATE 1/12/24 105616 CITY FILE NO SHEET NO.

SECTION 32 9300 - LANDSCAPE PART 1 - GENERAL

1.1 QUALIFICATIONS OF THE LANDSCAPE CONTRACTOR

1.3 SCOPE OF WORK / DESCRIPTION OF WORK

- A. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING
- A. REFER TO LANDSCAPE PLANS, NOTES, SCHEDULES AND DETAILS FOR ADDITIONAL REQUIREMENTS
- A. WORK COVERED BY THESE SECTIONS INCLUDES: FURNISH ALL SUPERVISIONS LABOR MATERIALS SERVICES FOLIPMENT AND APPLIANCES REQUIRED TO COMPLETE THE WORK COVERED IN CONJUNCTION WITH THE LANDSCAPING COVERED IN LANDSCAPE PLANS
- AND SPECIFICATIONS INCLUDING PLANTING (TREES, SHRUBS, GRASSES)
- 1. BED PREP AND FERTILIZATION
- 3. NOTIFICATION OF SOURCES 4. WATER AND MAINTENANCE UNTIL ACCEPTANCE
- GUARANTEE B. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL. STATE AND LOCAL AUTHORITIES IN SUPPLY. TRANSPORTATION AND INSTALLATION OF MATERIALS.
- C. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL DERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK

1.4 REFERENCES

- A. AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICAN ASSOCIATION OF NURSERYMEN; 27 OCTOBER 1980, EDITION; BY AMERICAN NATIONAL STANDARDS INSTUTUTE (Z60.1) - PLANT MATERIAL
- B. AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE; 1942 EDITION OF STANDARDIZED PLANT NAMES. C. TEXAS ASSOCIATION OF NURSERYMEN, GRADES AND STANDARDS

1.5 SUBMITTALS

- A. PROVIDE REPRESENTATIVE QUANTITIES OF EACH SOIL, MULCH, BED MIX, GRAVEL AND STONE BEFORE INSTALLATION. SAMPLES TO BE APPROVED BY OWNER'S REPRESENTATIVE BEFORE USE. B. SOIL AMENDMENTS AND FERTILIZERS SHOULD BE RESEARCHED AND BASED
- ON THE SOILS IN THE AREA. C. BEFORE INSTALLATION, SUBMIT DOCUMENTATION THAT PLANT MATERIALS ARE AVAILABLE AND HAVE BEEN RESERVED. FOR ANY PLANT MATERIAL NOT
- AVAILABLE, SUBMIT REQUEST FOR SUBSTITUTION. 1.6 JOB CONDITIONS, DELIVERY, STORAGE AND HANDLING
- A. GENERAL CONTRACTOR TO COMPLETE WORK BEFORE LANDSCAPE
- CONTRACTOR TO COMMENCE. B. ALL PLANTING BED AREAS SHALL BE LEFT THREE INCHES BELOW FINAL GRADE OF SIDEWALKS, DRIVES AND CURBS. ALL AREAS TO RECEIVE SOLID SOD SHALL BE LEFT ONE INCH BELOW THE FINAL GRADE OF WALKS. DRIVES AND CURBS. CONSTRUCTION DEBRIS SHALL BE REMOVED PRIOR TO
- LANDSCAPE CONTRACTOR BEGINNING WORK C. 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.

- A. INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO INSTALLATION OF LAWN/SOLID SOD
- B. WHERE EXISTING TURF AREAS ARE BEING CONVERTED TO PLANTING BEDS, IE TURF SHALL BE CHEMICALLY ERADICATED TO MINIMIZE RE-GROWTH IN HE FUTURE. AREAS SHALL BE PROPERLY PREPARED WITH AMENDED ORGANIC MATTER.

1.8 MAINTENANCE AND GUARANTEE

MAINTENANCE

- A. THE LANDSCAPE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE AINTENANCE OF ALL WORK FROM THE TIME OF PLANTING UNTIL FINAL
- B. NO TREES, GRASS, GROUNDCOVER OR GRASS WILL BE ACCEPTED UNLESS THEY SHOW HEALTHY GROWTH AND SATISFACTORY FOLIAGE CONDITIONS.
- C. MAINTENANCE SHALL INCLUDE WATERING OF TREES AND PLANTS, CULTIVATION, WEED SPRAYING, EDGING, PRUNING OF TREES, MOWING OF GRASS, CLEANING UP AND ALL OTHER WORK NECESSARY FOR MAINTENANCE.
- D. A WRITTEN NOTICE REQUESTING FINAL INSPECTION AND ACCEPTANCE SHOULD BE SUBMITTED TO THE OWNER AT LEAST 7 DAYS PRIOR TO COMPLETION. AN ON SITE INSPECTION BY THE OWNER'S AUTHORIZED REPRESENTATIVE WILL BE COMPLETED PRIOR TO WRITTEN ACCEPTANCE
- E. NOTIFY OWNER OR OWNER'S REPRESENTATIVE SEVEN DAYS PRIOR TO THE
- F. REMOVE DEAD, UNHEALTHY AND UNSIGHTLY PLANTS DURING WARRANTY G. REMOVE GUYING AND STAKING MATERIALS AFTER ONE YEAR
- H. ALL LANDSCAPE MUST BE MAINTAINED AND GRASS MOWED/EDGED ON A WEEKLY SCHEDULE UNTIL ACCEPTANCE BY OWNER. REMOVE CLIPPINGS
- AND DEBRIS FROM SITE PROMPTLY I. REMOVE TRASH, DEBRIS, AND LITTER, WATER, PRUNE, RESTAKE TREES FERTILIZE, WEED AND APPLY HERBICIDES AND FUNGICIDES AS REQUIRED. J. COORDINATE THE OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT
- PLANTS ARE ADEQUATELY WATERED. HAND WATER AREAS NOT RECEIVING ADEQUATE WATER FROM AN IRRIGATION SYSTEM. K. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN
- ACCORDANCE TO THE MAINTENANCE SERVICE TO ENSURE THE SYSTEM IS IN PROPER WORKING ORDER WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION REAPPLY MULCH TO BARE AND THIN AREAS.
- M. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL,
- HEALTHY STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER N. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR: a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH
 - EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
- b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
- c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING HYDROMULCHED AREAS SHALL SHOW ACTIVE. HEALTHY GROWTH BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL

ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

GUARANTEE

- A. TREES, SHRUBS, GROUNDCVOER SHALL BE GUARANTEED (IN WRITING) FOR A 12 MONTH PERIOD (90 DAYS FOR ANNUAL PLANTING OR AT THE END OF THE SEASONAL COLOR GROWING SEASON, WHICHEVER COMES SOONER) AFTER FINAL ACCEPTANCE. THE CONTRACTOR SHALL REPLACE ALL DEAD MATERIALS AS SOON AS WEATHER PERMITS AND UPON NOTIFICATION OF
- B. 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
- C. PLANTS USED FOR REPLACEMENT SHALL BE OF THE SAME SIZE AND KIND AS THOSE ORIGINALLY PLANTED OR SPECIFIED. ALL WORK INCLUDING MATERIALS, LABOR AND FOUIPMENT USED IN REPLACEMENTS SHALL CARRY A 12 MONTH GUARANTEE, ANY DAMAGE INCLUDING RUTS IN LAWN OR BED AREAS INCURRED AS A RESULT OF MAKING REPLACEMENTS SHALL BE
- D. WHEN PLANT REPLACEMENTS ARE MADE, PLANTS, SOIL MIX, FERTILIZEF AND MULCH ARE TO BE UTILIZED AS ORIGINALLY SPECIFIED AND RE-INSPECTED FOR FULL COMPLIANCE WITH THE CONTRACT REQUIREMENTS. ALL REPLACEMENTS ARE INCLUDED UNDER "WORK" OF
- E. THE OWNER AGREES THAT FOR THE ONE YEAR WARRANTY PERIOD TO BE EFFECTIVE, HE WILL WATER PLANTS AT LEAST TWICE A WEEK DURING DRY
- F. THE ABOVE GUARANTEE SHALL NOT APPLY WHERE PLANTS DIE AFTER ACCEPTANCE BECAUSE OF DAMAGE DUE TO ACTS OF GOD, VANDALISM INSECTS, DISEASE, INJURY BY HUMANS, MACHINES, THEFT OR NEGLIGENCE BY OWNER.
- G. ACCEPTANCE FOR ALL LANDSCAPE WORK SHALL BE GIVEN AFTER FINAL INSPECTION BY THE OWNER PROVIDED THE JOB IS IN A COMPLETE, JNDAMAGED CONDITION AND THERE IS A STAND OF GRASS IN ALL LAWN AREAS. AT THAT TIME, THE OWNER WILL ASSUME MAINTENANCE ON THE ACCEPTED WORK.

1.9 QUALITY ASSURANCE

- A. COMPLY WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.
- B. EMPLOY PERSONNEL EXPERIENCED AND FAMILIAR WITH THE REQUIRED
- WORK AND SUPERVISION BY A FOREMAN. C. MAKE CONTACT WITH SUPPLIERS IMMEDIATELY UPON OBTAINING NOTICE

- OF CONTRACT ACCEPTANCE TO SELECT AND BOOK MATERIALS. D. DEVELOP A PROGRAM OF MAINTENANCE (PRUNING AND FERTILIZATION) WHICH WILL ENSURE THE PURCHASED MATERIALS WILL MEET AND/OR
- EXCEED PROJECT SPECIFICATIONS. E. DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS. IF THE LANDSCAPE MATERIAL SPECIFIED IS NOT READILY AVAILABLE, SUBMIT PROOF TO LANDSCAPE ARCHITECT ALONG WITH THE PROPOSED MATERIAL TO BE
- USED IN LIEU OF THE SPECIFIED PLANT. F. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED
- G. OWNER'S REPRESENTATIVE SHALL INSPECT ALL PLANT MATERIAL AND RETAINS THE RIGHT TO INSPECT MATERIALS UPON ARRIVAL TO THE SITE AND DURING INSTALLATION. THE OWNER'S REPRESENTATIVE MAY ALSO REJECT ANY MATERIALS HE/SHE FEELS TO BE UNSATISFACTORY OR DEFECTIVE DURING THE WORK PROCESS. ALL PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REJECTED.
- 1.10 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

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
 - 3 PROTECT BOOT 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 BALL OR DESICCATION OF LEAVES. 5. KEEP PLANTS MOIST AT ALL TIMES. COVER ALL MATERIALS DURING
 - 6. NOTIFY OWNERS REPRESENTATIVE OF DELIVERY 72 HOURS PRIOR TO DELIVERY OF PLANT MATERIAL AT JOB SITE. 7. REMOVE REJECTED PLANT MATERIAL IMMEDIATELY FROM JOB SITE

8. 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 PLANT MATERIALS A. GENERAL: WELL FORMED NO. 1 GRADE OR BETTER NURSERY GROWN STOCK, LISTED PLANT HEIGHTS ARE FROM TOPS OF FOOT BALLS TO NOMINAL TOPS OF PLANTS. PLANT SPREAD REFERS TO NOMINAL OUTER WIDTH OF THE PLANT NOT THE OUTER LEAF TIPS. PLANTS SHALL BE INDIVIDUALLY APPROVED BY THE OWNERS REPRESENTATIVE AND THEIR 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.
- GIVEN ON THE PLAN AND SHALL BE HEALTHY. WELL SHAPED. FULL BRANCHED AND WELL ROOTED. SYMMETRY IS ALSO IMPERATIVE. PLANTS SHALL BE FREE FROM INSECTS. INJURY. DISEASE, BROKEN BRANCHES. DISFIGUREMENTS, INSECT EGGS AND ARE TO BE OF SPECIMEN QUALITY. D. APPROVAL: ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR ARE UNHEALTHY. BADLY SHAPED OR UNDERSIZED WILL BE REJECTED BY THE OWNERS REPRESENTATIVE EITHER BEFORE OR AFTER PLANTING AND

C. QUANTITIES AND SIZE: PLANT MATERIALS SHALL CONFORM TO THE SIZE

- SHALL BE REMOVED AT THE EXPENSE OF THE LANDSCAPE CONTRACTOR AND REPLACED WITH ACCEPTABLE SPECIMENS F. TREES SHALL BE HEALTHY, FULL BRANCHED, WELL SHAPED AND SHALL MEET THE MINIMUM REQUIREMENTS AS SPECIFIED ON THE PLANT SCHEDULE. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE IF POSSIBLE, AND WITH SIMILAR CLIMACTIC
- F. PRUNING: ALL PRUNING OF TREES AND SHRUBS SHALL BE EXECUTED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER,
- PRIOR TO FINAL ACCEPTANCE. G. PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED, EXCEPT THE PLANTS LARGER THAN THOSE SPECIFIED MAY BE USED. USE OF LARGER
- PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. H. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE. I. BOOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED, FIBROUS BOOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING
- ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED J. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. REES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS
- DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING K. TREE TRUNKS TO BE STURDY, EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND.
- L. TREES WITH DAMAGED OR CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, DISFIGURING KNOTS, OR\INSECT DAMAGE WILL BE REJECTED. M. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND
- INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER N. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT.
- MEASURED FROM THE TOP OF THE ROOT BALL. O. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY
- COVERED, SHALL BE REJECTED. P. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY. MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.

2.2 SOIL PREPARATION MATERIALS A. SANDY LOAM:

- 1. FRIABLE, FERTILE, DARK, LOAMY SOIL, FREE OF CLAY LUMPS, SUBSOIL, STONES AND OTHER EXTRANEOUS MATERIAL AND REASONABLY FREE OF WEEDS AND
- FOREIGN GRASSES. LOAM CONTAINING DALLASGRASS OR NUTGRASS SHALL BE REJECTED 2. PHYSICAL PROPERTIES AS FOLLOWS:
- a. CLAY BETWEEN 7-27%
- b. SILT BETWEEN 15-25% c. SAND – LESS THAN 52%
- 3. ORGANIC MATTER SHALL BE 3%-10% OF TOTAL DRY 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 VITAL FARTH 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.
- 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 H. PEAT: COMMERCIAL SPHAGNUM PEAT MOSS OR PARTIALLY

DECOMPOSED SHREDDED PINE BARK OR OTHER APPROVED ORGANIC MATERIAL

2.3 MISCELLANEOUS MATERIALS

- A. STEEL EDGING SHALL BE 3/16" X 4" X 16" DARK GREEN LANDSCAPE EDGING. DURAEDGE STEEL OR APPROVED EQUAL. B. TREE STAKING - TREE STAKING SOLUTIONS OR APPROVED SUBSTITUTE;
- REFER TO DETAILS. C. FILTER FABRIC - MIRAFI 1405 BY MIRAFI INC. OR APPROVED SUBSTITUTE. AVAILABLE AT LONE STAR PRODUCTS, INC. (469-523-0444)

D. SAND - UNIFORMLY GRADED, WASHED, CLEAN, BANK RUN SAND.

E. GRAVEL: WASHED NATIVE PEA GRAVEL, GRADED 1" TO 1.5" F. DECOMPOSED GRANITE - BASE MATERIAL OF NATURAL MATERIAL MIX OF GRANITE AGGREGATE NOT TO EXCEED 1/8" IN DIAMETER COMPOSED OF

G. RIVER ROCK - LOCALLY AVAILABLE NATIVE RIVER ROCK BETWEEN 2"-4" IN

VARIOUS STAGES OF DECOMPOSED EARTH BASE.

H. PRE-EMERGENT HERBICIDES: ANY GRANULAR. NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

PART 3 - EXECUTION 3.1 PREPARATION

- 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 SPECIFIED MULCH (SETTLED 2. BACKFILL FOR TREE PITS SHALL BE AS FOLLOWS: USE EXISTING TOP SOIL ON SITE (USE IMPORTED TOPSOIL AS NEEDED) FREE FROM LARGE CLUMPS, ROCKS, DEBRIS, CALICHE, SUBSOILS, ETC., PLACED IN NINE (9") INCH LAYERS AND WATERED IN THOROUGHLY.
- C. GRASS AREAS 1. BLOCKS OF SOD SHOULD BE LAID JOINT TO JOINT (STAGGERED JOINTS) AFTER FERTILIZING THE GROUND FIRST. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE. THE JOINTS BETWEEN THE BLOCKS OF SOD SHOULD BE FILLED WITH TOPSOIL WHERE THEY ARE GAPED OPEN, THEN WATERED THOROUGHLY.

PER PLAN.

- 3.2 INSTALLATION A. MAINTENANCE OF PLANT MATERIALS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS DELIVERED TO THE SITE AND SHALL CONTINUE 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 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

- 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. THE SIDES OF THE HOLE SHOULD BE ROUGH AND JAGGED NEVER SLICK OR GLAZED. F. SHRUB AND TREE PITS SHALL BE NO LESS THAN TWENTY-FOUR (24") INCHES WIDER THAN THE LATERAL DIMENSION OF THE EARTH BAL AND SIX (6") INCHES DEEPER THAN IT'S VERTICAL DIMENSION REMOVE AND HAUL FROM SITE ALL ROCKS AND STONES OVER THREE-QUARTER ($rac{3}{4}$ ") INCH IN DIAMETER. PLANTS SHOULD BE
- G. 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 IF THE PERCOLATION TEST FAILS. H. 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 ROOT BOUND, IF SO FOLLOW STANDARD NURSERY PRACTICE OF 'ROOT SCORING'
- DO NOT WRAP TREES J. DO NOT OVER PRUNE.
- K. REMOVE NURSERY TAGS AND STAKES FROM ALL PLANTS L. REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING PLANTS. REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING.

M. REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAPPED TREES

AFTER PLACEMENT N. PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. ORIENT PLANTS FOR BEST APPEARANCE. O. MULCH THE TOP OF THE BALL. DO NOT PLANT GRASS ALL THE WAY THE TRUNK OF THE TREE. LEAVE THE AREA ABOVE THE TOP OF

THE BALL AND MULCH WITH AT LEAST TWO (2") INCHES OF SPECIFIED

- P. ALL PLANT BEDS AND TREES TO BE MULCHED WITH A MINIMUM SETTLED THICKNESS OF TWO (2") INCHES OVER THE ENTIRE BED OF
- O. 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. R. TREES AND LARGE SHRUBS SHALL BE STAKED AS SITE CONDITIONS REQUIRE. POSITION STAKES TO SECURE TREES AGAINST SEASONAL
- PREVAILING WINDS. S. PRUNING AND MULCHING: PRUNING SHALL BE DIRECTED BY THE LANDSCAPE ARCHITECT AND SHALL BE PRIMED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE FOLLOWING FINE RUNING, 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 2. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. 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 EDGE INSTALLATION: EDGE SHALL BE ALIGNED AS INDICATED ON PLANS. STAKE OUT LIMITS OF STEEL CURBING AND OBTAIN OWNERS APPROVAL PRIOR TO INSTALLATION
- 1. ALL STEEL CURBING SHALL BE FREE OF KINKS AND ABRUPT TOP OF EDGING SHALL BE ½" MAXIMUM HEIGHT ABOVE FINAL 3. STAKES ARE TO BE INSTALLED ON THE PLANTING BED SIDE OF THE CURBING, AS OPPOSED TO THE GRASS SIDE.
- 5. CUT STEEL EDGING AT 45 DEGREE ANGLE WHERE EDGING MEETS SIDEWALKS OR CURBS.

4. DO NOT INSTALL STEEL EDGING ALONG SIDEWALKS OR

WITHIN 24 HOURS.

END OF SECTION

- 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.
- B. REPAIR RUTS, HOLES AND SCARES IN GROUND SURFACES. C. ENSURE THAT WORK IS COMPLETE AND PLANT MATERIALS ARE IN VIGOROUS AND HEALTHY GROWING CONDITION. D. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL
- USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY. WHEN/IF THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS. THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION

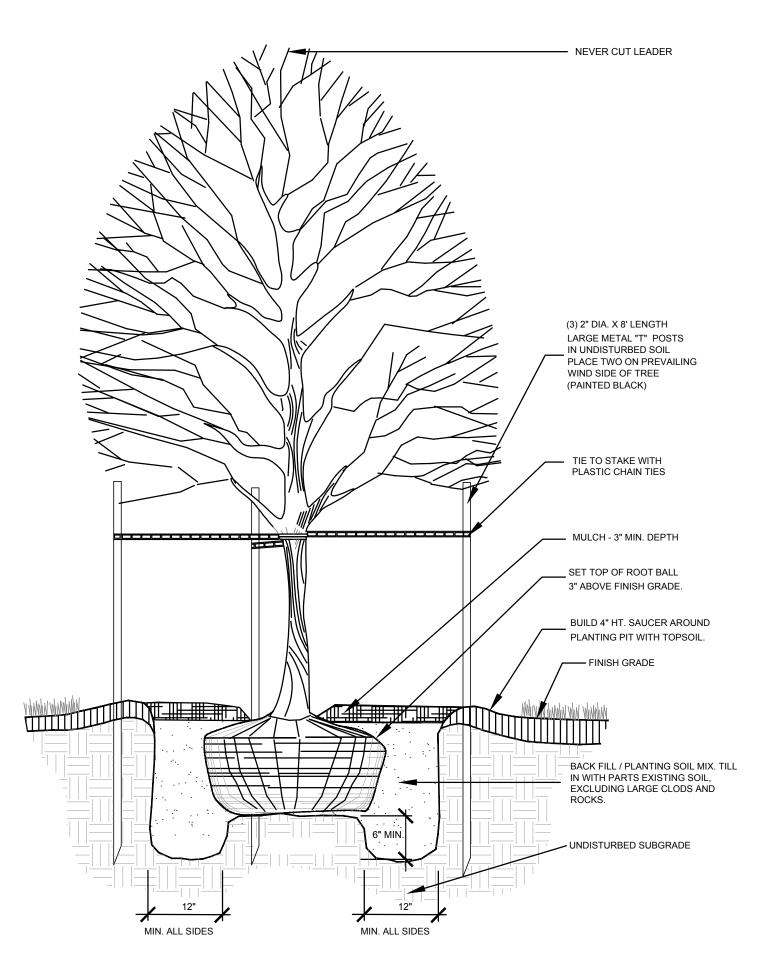
F. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE

LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND

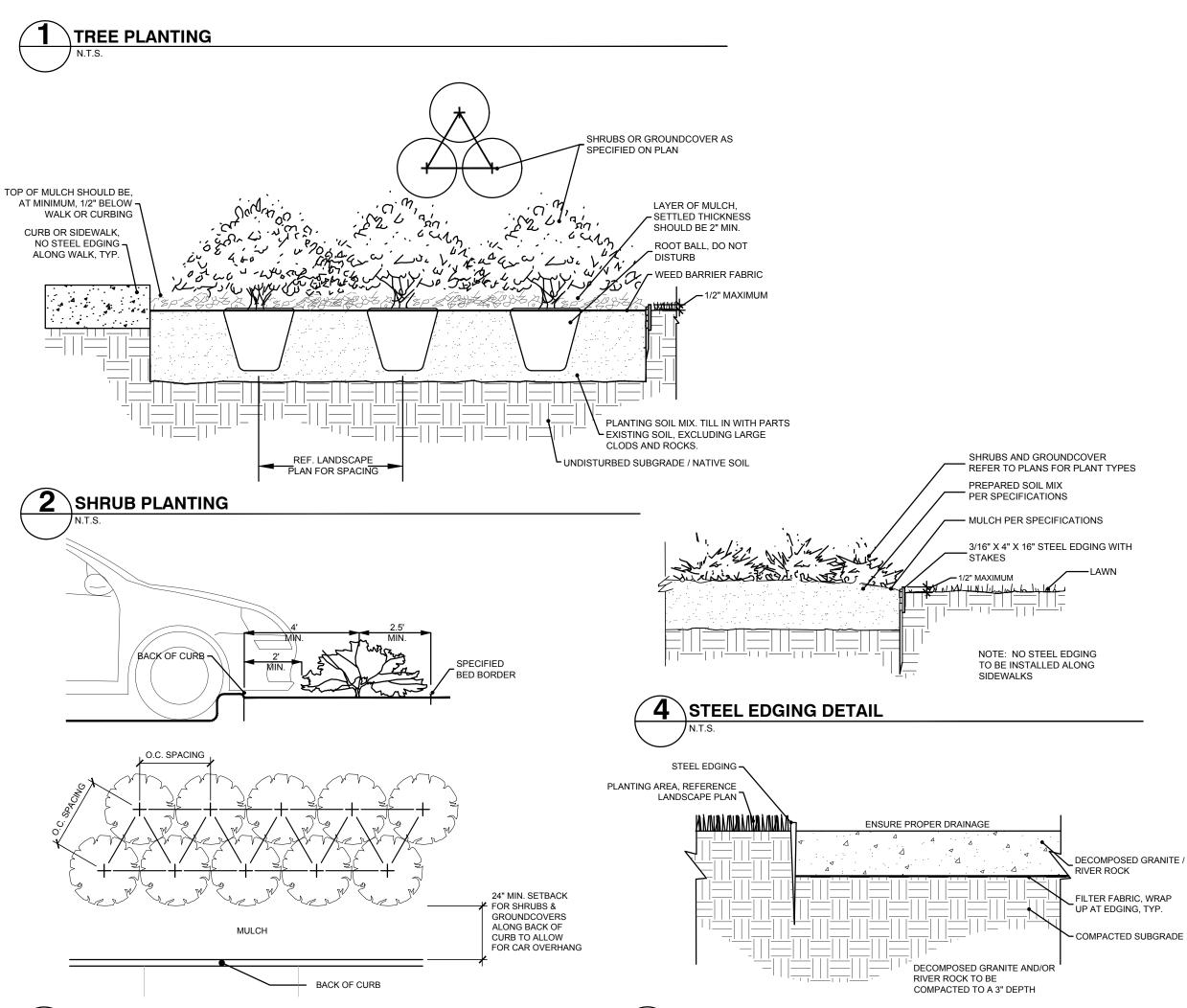
TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL

PROVIDE THE SITE CLEAN. FREE OF DEBRIS AND TRASH, AND SUITABLE FOR

ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.



SHRUB SPACING AND PLANTING AT B.O.C.





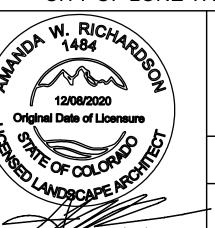
5 DECOMPOSED GRANITE / RIVER ROCK

LANDSCAPE SPECIFICATIONS **AND DETAILS**

JACK'S RESTAURANT

9155 PARK MEADOWS DRIVE

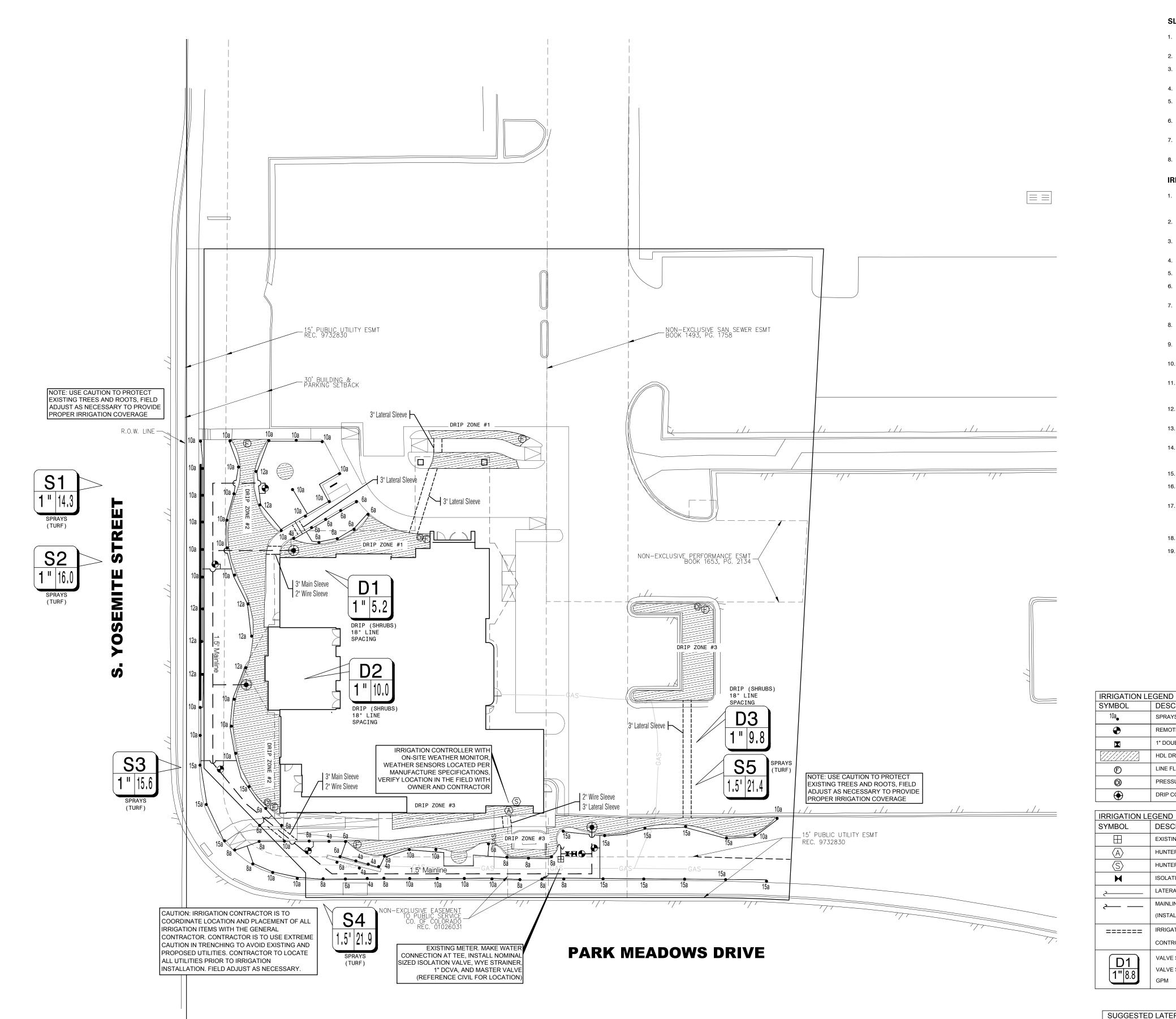
CITY OF LONE TREE, COLORADO





DEC FILE NO. 1/12/24 105616 CITY FILE NO

SHEET NO.



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

SLEEVING NOTES

- 1. PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFERENCE DRAWINGS FOR SLEEVE SIZE AND LOCATION.
- 2. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
- 3. INSTALLATION OF SLEEVES SHALL BE TWENTY FOUR (24") BELOW TOP OF PAVEMENT OR FINISHED
- 4. SLEEVES SHALL EXTEND ONE (1) FOOT BEYOND EDGE OF ALL PAVEMENT AND STAKED FOR LOCATION.
- 5. ALL SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, CAPPED ON BOTH ENDS AND SIZED AT LEAST TWO TIMES LARGER THAN THE DIAMETER OF THE PIPE INSIDE THE SLEEVE
- 6. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE TWO (2") INCHES LONG AND ONE (1") APART.
- 7. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND SHALL ALSO BE RESPONSIBLE FOR LOCATING ANY SLEEVE THAT CANNOT BE FOUND DURING THE INSTALLATION OF THE SYSTEM.
- 8. CONTRACTOR SHALL FURNISH OWNER AND IRRIGATION CONTRACTOR WITH AN 'AS-BUILT' DRAWING SHOWING ALL SLEEVE LOCATIONS.

IRRIGATION GENERAL NOTES

- . THE IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE IRRIGATION DESIGNER OF SITE CONDITIONS OR ASSUME FULL RESPONSIBILITY FOR ANY AND ALL ON SITE REVISIONS NECESSARY.
- 3. CONTRACTOR TO VERIFY DESIGN AND ITS INTENT TO PROVIDE FULL COVERAGE TO ALL NEW PLANTING
- 4. NOTIFY IRRIGATION DESIGNER OF ANY LAYOUT DISCREPANCIES PRIOR TO BIDDING.
- 5. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE IRRIGATION INSTALLATION BEGINS.
- 6. IRRIGATION CONTRACTOR TO PROCURE ALL PERMITS, LICENSES AND GIVE ALL NECESSARY NOTICES THROUGHOUT THE DURATION OF THE PROJECT.
- 7. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN GOOD STANDING WITH STATE BOARDS AND REGULATORS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PLANT MATERIAL UPON ACCEPTANCE AND THROUGH THE WARRANTY PERIOD FOR DAMAGE DUE TO IRRIGATION SYSTEM FAILURE.
- 9. ALL ASPECTS OF THE IRRIGATION INSTALLATION SHALL CONFORM WITH THE PROPER GOVERNING AUTHORITIES, CODES AND ORDINANCES.
- 10. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE SCHEDULE 40, SIZE AS INDICATED ON PLAN. REFER TO SLEEVING NOTES.
- 11. ALL MAIN LINE AND LATERAL LINE PIPING IN PLANTING AND LAWN AREAS SHALL HAVE A MINIMUM OF 12
- CONTRACTOR TO VERIFY LOCAL FREEZE DEPTHS AND ADJUST DEPTH OF COVER ACCORDINGLY. 12. ZONE VALVES SHALL NOT BE LOCATED WITHIN THREE (3') FEET OF ANY DRIVEWAY, TRAFFIC AISLE,

13. ALL NOZZLES IN PARKING LOT ISLANDS AND PLANTING BEDS SHALL BE LOW ANGLE NOZZLES TO

INCHES OF COVER. ALL PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18 INCHES OF COVER.

- ISLAND ETC. WHERE THEY WILL BE DAMAGED BY VEHICLES DRIVING OVER CURBS.
- MINIMIZE OVER SPRAY ON PAVEMENT SURFACES. 14. AUTOMATIC CONTROLLER SHALL BE INSTALLED AT LOCATION SHOWN. POWER (120V) SHALL BE
- LOCATED IN A JUNCTION BOX WITHIN FIVE (5') FEET OF CONTROLLER, LOCATION BY OTHER TRADES. RAIN AND FREEZE SENSORS SHALL BE INSTALLED WITH EACH CONTROLLER.
- 15. ELECTRICAL SPLICES SHOULD BE LOCATED AT EACH VALVE AND CONTROLLER ONLY.
- 16. PROVIDE A 3/4" BLOW DOWN DRAIN TEE TO ALLOW WATER TO BE BLOWN FROM THE IRRIGATION LINES/SYSTEM.
- 17. DISTURBED AREAS IN NEED OF TURE ESTABLISHMENT MAY EXIST BEYOND COVERAGE LIMITS OF THE PERMANENT IRRIGATION SYSTEM, IN THESE AREAS, CONTRACTOR TO DETERMINE A TEMPORARY MEANS TO ESTABLISH NECESSARY TURF. CONTRACTOR IS ENCOURAGED TO BEGIN TURF ESTABLISHMENT IMMEDIATELY UPON FINAL GRADE IN ACCORDANCE WITH AND TO SATISFY SWPPP.
- 18. PROVIDE WITH OWNER A COPY OF ALL INSTALLED EQUIPMENT AND LINES (AS BUILT PLANS.)

MANUFACTURER

HUNTER

FEBCO

HUNTER

HUNTER

HUNTER

REFER TO PLAN

VALVE STATION # (WHERE D = DRIP TUBING, S = SPRAY, R = ROTOR, T = TREE DRIP)

(INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM)

IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED, ONE SLEEVE PER PIPE

MAINLINE PIPING REFER TO PLAN SCH. 40 PVC, SIZED AS SHOWN

MODEL NO.

850 SERIES

HDL-06-12-CV

ICZ-101-LF-40

CLASS 200 PVC

AFV-B

ECO-ID

ICV

PROS-04-PRS30

19. PLACE COPY OF ZONE MAP WITH ALL ZONE VALVE LOCATIONS SHOWN AND APPROVED IRRIGATION PLAN IN PROTECTIVE JACKET IN MAIN CONTROL PANEL

IRRIGATION PROJECT NOTES

- 1. THE LOCATION OF MAINLINE AND VALVES ON THIS PLAN MAY BE SHOWN IN PAVED AREAS FOR DESIGN CLARITY ONLY, IRRIGATION ELEMENTS HAVE BEEN SHOWN ON THIS PLAN AS ACCURATELY AS POSSIBLE WITHOUT THE FORFEIT OF DESIGN CLARITY AND INTENT. ALL PIPES AND VALVES SHALL BE INSTALLED WITHIN PERVIOUS AREAS. ALL PIPE AND WIRES THAT CROSS UNDER PAVING SHALL BE INSTALLED IN
- 2. ALL SPRINKLER EQUIPMENT NUMBERS REFERENCE THE HUNTER EQUIPMENT CATALOG UNLESS OTHERWISE INDICATED.
- 3. TEN DAYS PRIOR TO START OF CONSTRUCTION, IRRIGATION CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE. THE IRRIGATION SYSTEM FOR THIS SITE IS DESIGNED TO OPERATE WITH A PRESSURE OF SIXTY FIVE (65 PSI) POUNDS PER SQUARE INCH. SHOULD THE DESIGN PRESSURE FOR THE SYSTEM BE HIGHER THAN THE EXISTING PRESSURE, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE IRRIGATION DESIGNER IMMEDIATELY.
- 4. IRRIGATION CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONTROLLER AND SENSORS WITH THE GENERAL CONTRACTOR AND OWNER. A 110 VOLT ELECTRICAL SERVICE TO POWER THE IRRIGATION CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AT THE LOCATION
- 5. WATER SERVICE TAP, METER AND LEAD FOR THE IRRIGATION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON
- 6. TYPE AND INSTALLATION OF THE WATER METER AND BACK FLOW PREVENTION DEVICE SHALL BE DETERMINED BY THE GOVERNING AUTHORITY. AN ISOLATION VALVE SHALL BE PROVIDED BETWEEN THE WATER METER AND BACK FLOW DEVICE.
- 7. ALL CALCULATIONS FOR THIS IRRIGATION SYSTEM ARE BASED ON PRODUCTS AND EQUIPMENT INFORMATION PROVIDED BY HUNTER. INSTALLATION OF THESE PRODUCTS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS
- 8. REFERENCE HUNTER GUIDELINES AND SPECIFICATIONS PRIOR TO INSTALLATION. CONFIRM REQUIREMENTS FOR CONTROLLER, WATERPROOF CONNECTIONS, GROUNDING, SURGE PROTECTORS, DECODERS, VALUES, AND WIRING PRIOR TO INSTALLATION. HUNTER TECHNICAL
- 9. SPRAY HEADS LOCATED IN TURF AREAS SHALL BE HUNTER PROS-04-PRS30 SPRAY BODIES WITH PRO ADJUSTABLE NOZZLES, FIXED ARC NOZZLES, AND STRIP PATTERN NOZZLES RATE AND AS INDICATED

SERVICES (760) 591-7383. WWW.HUNTERINDUSTRIES.COM

- 10. IRRIGATION REMOTE CONTROL VALVES SHALL BE 1" AND/OR 1.5" HUNTER ICV AS INDICATED. PRIOR TO
- ALL REMOTE CONTROL VALVES. INSTALL A NOMINALLY SIZED BALL VALVE WITHIN THE SAME BOX. 11. SIZE OF VALVES ARE AS SHOWN ON PLAN. VALVES SHALL BE INSTALLED IN APPROVED BOXES WITH COVERS LARGE ENOUGH TO PERMIT MANUAL OPERATION, REMOVAL OF SOLENOID AND / OR VALVE

COVER WITHOUT ANY EARTH EXCAVATION. OWNERS MAY ELECT LOCKING BOXES ON A PROJECT BY

- 12. QUICK COUPLING VALVES SHALL BE HUNTER INSTALLED PER DETAIL SHOWN. SWING JOINTS SHALL BE
- CONSTRUCTED USING ¾" SCHEDULE 80 ELBOWS. CONTRACTOR SHALL SUPPLY OWNER WITH TWO (2) HQ-3-RC COUPLERS WITH (2) HK-33 KEYS AND TWO (2) HS-0 HOSE SWIVELS AS PART OF THIS CONTRACT
- IRRIGATION SYSTEM AUTOMATIC CONTROLLER SHALL BE HUNTER PRO-C-12 STATION PC-1200 WITH RAIN AND FREEZE SENSORS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONFIRM WIRING, GROUNDING AND SURGE PROTECTION REQUIREMENTS BEFORE INSTALLING.
- 14. DRIP IRRIGATION REMOTE CONTROL VALVES SHALL BE HUNTER ICZ-101-LF-40 AS INDICATED. DRIP TUBING SHALL BE HUNTER HDL-06-12-CV.
- 15. INSTALL DRIP TUBING/LINES PER MANUFACTURERS RECOMMENDATIONS. USE PLD-LOC FITTINGS PLD-LOC 075, PLD-LOC 050, PLD-LOC ELB, PLD-LOC CPL, PLD-LOC CAP, PLD-LOC TEE, PLD-LOC OR USE FHS BARB FITTINGS PLD-075, PLD-050, PLD-ELB, PLD-CPL, PLD-CAP, PLD-TEE, PLD-075-TBTEE, PLD-BV. USE ECO-INDICATOR ECO-ID. USE LINE FLUSHING VALVE HUNTER AFV-B.
- 16. DRIP TUBING SHALL BE SPACED 18" APART IN SHRUB AREAS. REFER TO MANUFACTURERS
- 17. ALL VALVE CONTROL WIRE SHALL BE SIZED PER MANUFACTURER GUIDELINES BY THE CONTRACTOR ACCORDING TO THE ACTUAL FIELD DISTANCE. ALL CONNECTIONS SHALL BE WATER-PROOF, KEPT TO A MINIMUM. AND LOCATED IN AN APPROVED BOX.

THE BUILDING.

CITY NOTES:

1. IRRIGATION SHALL OCCUR BETWEEN THE HOUR OF 8:00 P.M. AND 6:00 A.M.

2. ANY IRRIGATION EQUIPMENT MOUNTED TO THE BUILDING SHALL BE PAINTED TO MATCH

AND ALL PROPOSED PLANT MATERIAL

IRRIGATION UNTIL ESTABLISHED, TYP

FEED LATERALS WHEN POSSIBLE.

INSTALL PER MANUFACTURE'S RECOMMENDATIONS.

NOTE: 1. ENTIRE SYSTEM SHALL BE INSTALLED PER STATE STANDARDS. MANUFACTURER'S SPECIFICATIONS AND ALL CITY CODES.

. THIS DESIGN IS DIAGRAMMATIC, ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR RRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS

. VARIOUS AREAS ON PLAN ARE SHOWING SINGLE HEAD COVERAGE. IF OWNER SHOULD ELECT FOR FULL COVERAGE, CONTRACTOR TO PROCURE HE PROPER PERMITS AND BID ALTERNATE FOR THESE ADDITIONAL SPRAY HEADS, ZONES, AND CONTROLLER EXPANSION FOR THE SYSTEM.

. IRRIGATION CONTRACTOR IS TO COORDINATE LOCATION AND PLACEMENT OF ALL IRRIGATION ITEMS WITH THE GENERAL CONTRACTOR, CONTRACTOR IS O USE EXTREME CAUTION IN TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO RRIGATION INSTALLATION.

. IRRIGATION SPRAY NOZZLES TO BE ADJUSTED TO AVOID PAVEMENT, BUILDING, WALLS, FENCES, UTILITIES, EQUIPMENT, SIGNAGE, AND CALL BOX 3. REFERENCE LANDSCAPE PLAN FOR LOCATION OF GRAVEL, STEEL EDGING

. IN TURF AREAS (BOTH SOD AND HYDROMULCH AREAS) OUTSIDE OF RRIGATION PERMANENT COVERAGE, CONTRACTOR TO PROVIDE TEMPORARY

3. CONTRACTOR TO TAKE ALL NECESSARY MEASURES TO PREVENT WATER HAMMER AND SYSTEM COLLAPSE BY DISCHARGING AIR DURING STARTUP AND ALLOWING AIR TO ENTER DURING SHUTDOWN. INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM. FOR 3 INCH AND LARGER MAINLINE, INSTALL JOINT RESTRAINTS AT TURNS.

9. ALL MAINLINE PIPING 3 INCHES AND LARGER SHALL BE BELL AND GASKETED CLASS 200 PVC PIPE, SDR 21. INSTALL PER MANUFACTURERS RECOMMENDATIONS, CONTACT MANUFACTURE OR DISTRIBUTOR FOR

PRODUCT DEMONSTRATION. 10. GROUP VALVES IN FIELD AS NECESSARY FOR MAINLINE SIZING. CENTER

SUGGESTED LATERAL PIPE SIZE, CLASS 200 PVC					
FLOW RANGE GPM	PIPE SIZE				
0 - 8 GPM	3/4"				
8 - 12 GPM	1"				
12 - 22 GPM	1-1/4 "				
22 - 28 GPM	1-1/2"				
28 + GPM	2"				

DESCRIPTION

HDL DRIPLINE

LINE FLUSHING VALVE

DRIP CONTROL VALVE

DESCRIPTION

ISOLATION VALVE

LATERAL PIPING

VALVE SIZE

EXISTING WATER METER

HUNTER - RAIN-CLIK SENSOR

HUNTER - PRO-C-12 STATION - PC-1200

CONTROL WIRING SLEEVE, 2" SCH. 40 PVC

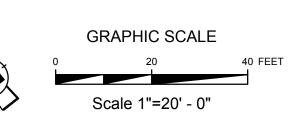
REMOTE CONTROL VALVE

1" DOUBLE CHECK ASSEMBLY

SPRAYS WITH PRO ADJ. NOZZLES HUNTER

PRESSURE OPERATOR INDICATOR | HUNTER





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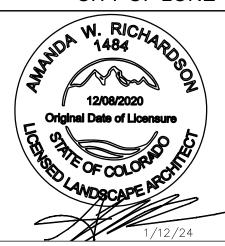


IRRIGATION PLAN

JACK'S RESTAURANT

9155 PARK MEADOWS DRIVE

CITY OF LONE TREE, COLORADO





DEC FILE NO. 1/12/24 105616 CITY FILE NO SHEET NO.

SECTION 32 8423 - UNDERGROUND IRRIGATION SLEEVES AND UTILITY CONDUITS PART 1 - GENERAL

1.1 DESCRIPTION A. PROVIDE UNDERGROUND IRRIGATION SLEEVES AS INDICATED ON THE

1.2 RELATED WORK

A. SECTION 32 8424 - IRRIGATION SYSTEM.

1.3 REFERENCE STANDARDS A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST

PART 2 - MATERIALS

EDITION.

2.1 GENERAL

- A. POLYVINYL CHLORIDE PIPE (PVC) SCHEDULE 40 SHALL BE USED FOR ALL SLEEVING PURPOSES
- B. PVC PIPES SHALL BE MARKED WITH SDR NUMBER, ASTM STANDARD NUMBER. AND THE NSF SEA
- C. SOLVENT SHALL BE USED AS RECOMMENDED BY MANUFACTURER TO MAKE SOLVENT WELDED JOINTS. PIPE AND FITTINGS SHOULD BE CLEANED BEFORE APPLYING SOLVENT

PART 3 - EXECUTION

3.1 INSTALLATION

- A. A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.
- B. SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY TWELVE (12) INCHES. CAP PIPE ENDS.
- A. BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE.

B. REPAIR ANY DAMAGE FROM IMPROPER COMPACTION. **END OF SECTION**

SECTION 32 8424 - IRRIGATION SYSTEM

PART 1 - GENERAL

- 1.1 DESCRIPTION A. PROVIDE A COMPLETE IRRIGATION SYSTEM INSTALLATION AS DETAILED AND SPECIFIED. THIS SHALL INCLUDE FURNISHING ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY TO PROVIDE COMPLETE
 - INSTALLATION. WORK INCLUDES: a. TRENCHING
 - b. BACKFILL
 - c. AUTOMATIC CONTROLLED SYSTEM
 - d. AS BUILT DRAWINGS
- B. SLEEVING AS SHOWN SHALL BE FURNISHED BY THE GENERAL CONTRACTOR.
- C. METER AND POWER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

1.2 RELATED WORK

2" x 2" REDWOOD STAKE W/

3/4-INCH WASHED GRAVEL

AND PRIOR TO MAINLINE TEE.

QUICK COUPLING VALVE

STAINLESS STEEL GEAR

CLAMPS OR EQUIVALENT

EDGE OF PAVING -

MODEL AND PROS-04-PRS30

PROS-04-PRS40 SPRAY BODY MIN.

OR FACE OF WALL

MP ROTATOR USE

FOR SHORT RADIUS

MP-800SR = 6' - 12'

MP-1000 = 8' - 15

MP STRIPS MP CORNERS

THROW)

MP-2000 = 13' - 21' MP-3000 = 22' - 30'

LABELED AS: RXX

(WHERE XX = DISTANCE OF

MPR-25, -30, OR -35 NOZZELS

(48") IN LENGTH OR WIDTH.

ROTORS USE PGP ULTRA

PGP-04-PRB MODEL W/

ROTATOR NOZZLES ARE

SPECIFIED AS FOLLOWS

SUPPORT SYSTEM

- C. REFERENCE IRRIGATION PLANS FOR CONTROLLER, HEAD AND ALL VALVE LOCATIONS.
- D. REFERENCE LANDSCAPE PLANS, NOTES, DETAILS FOR ADDITIONAL **REQUIREMENTS**

~ QUICK-COUPLING VALVE

HUNTER MODEL HQ-3RC

FINISH GRADE/TOP OF MULCH

PLASTIC VALVE BOX

WITH PURPLE COVER

PVC SCH 80 NIPPLE

(LENGTH AS REQUIRED)

- FINISH GRADE

PVC FLEX HOSE OR SWING PIPE

LATERAL LINE WITH

PVC TEE OR ELL

PVC STREET ELL OR

MALE BARBED ELBOW

MODEL: PROS-04-PRS30

W/ PRO ADJUSTABLE

NOZZLES (10a) OR STRIF

PATTERN NOZZLES AS

INDICATED ON PLAN. *

BRICK (1 OF 4)

SCH 80 NIPPLE

SET HEAD FLUSH WITH FINISH GRADE

PVC STREET ELL OR

1. MAY NOT BE USED IN LANDSCAPE AREAS LESS THAN FORTY-EIGHT INCHES

POP-UP SPRAY BODY OR POP-UP ROTOR

MALE BARBED ELBOW

3-INCH MINIMUM DEPTH OF J PVC SCH 40 TEE OR ELL

1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX

TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

2. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL

AND SCH 40 ELI

E. SECTION 32 9300 - LANDSCAPE

- F. SECTION 32-8423 UNDERGROUND IRRIGATION SLEEVE AND UTILITY
- 1.3 REFERENCE STANDARDS
- A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) LATEST EDITION.
- 1.4 QUALITY ASSURANCE AND REQUIREMENTS
- A. PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.
- B. MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURERS OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND **SPECIFICATIONS**
- C. ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME.
- D. HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY. HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.

1.5 SCHEDULE OF MATERIALS

- A. MATERIALS LIST:
- a. ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS
- b. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS. OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- c. A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTAL SHOULD INCLUDE ALL MANUFACTURERS' SPECIFICATIONS AND LITERATURE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- d. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED. e. APPROVAL OF ANY ITEM. ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS
- OF THE INFORMATION OR SAMPLES SUBMITTED. f. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL

ONLY SUPPLEMENT THE GUARANTEE. 1.4 RECORD AND AS BUILT DRAWINGS/SUBMITTALS

- A. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE AND COMPLETE
- "AS-BUILT" RECORD SET OF PRINTS. B. CONTRACTOR SHOULD USE ALL SYMBOLS AND NOTATIONS CONSISTENT
- WITH THE ORIGINAL DRAWINGS.
- C. IN "AS-BUILT" DRAWINGS, CONTRACTOR SHALL LOCATE:
- a. CONNECTION TO EXISTING WATER LINES
- b. CONNECTION TO ELECTRICAL POWER
- c. GATE VALVES d. ROUTING OF SPRINKLER PRESSURE LINES

e. SPRINKLER CONTROL VALVES

- f. QUICK COUPLING VALVES
- g. OTHER RELATED EQUIPMENT
- D. SUBMIT COMPLETED TRACINGS PRIOR TO FINAL ACCEPTANCE. DATE AND SIGN ALL DRAWINGS.
- E. EQUIPMENT TO BE FURNISHED:
- a. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS: i. QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED
- USING BRASS REDUCER.
- ii. THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER b. THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE
- OWNER AT THE CONCLUSION OF THE PROJECT. F. THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATION.
- 1.5 MAINTENANCE AND GUARANTEE
- A. MAINTENANCE AND WORKMANSHIP SHALL BE GUARANTEED FULLY FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE.
- B. PROVIDE MAINTENANCE OF SYSTEM, CLEANING AND ADJUSTMENT OF THE HEADS, FOR ONE (1) YEAR AFTER COMPLETION OF INSTALLATION.
- C. GUARANTEE IS LIMITED TO REPAIR AND REPLACEMENT OF DEFECTIVE MATERIALS AND WORKMANSHIP, INCLUDING THE REPAIR OF BACKFILL

- A. PERFORM TESTING REQUIRED WITH OTHER TRADES INCLUDING EARTHWORK, PAVING, PLUMBING, ETC. TO AVOID CUTTING, PATCHING OR
- B. WATER PRESSURE SHOULD BE FOUND PRIOR TO STARTING CONSTRUCTION, DETERMINE/CONFIRM THAT STATIC WATER PRESSURE IS MORE THAN THE WATER PRESSURE NEEDED FOR THE SYSTEM TO FUNCTION PROPERTY, IF STATIC PRESSURE IS LESS THAN THE DESIGN PRESSURE NEEDED, DO NOT START WORK UNTIL THE LANDSCAPE ARCHITECT IS NOTIFIED.

1.7 COORDINATION

- A. COORDINATE INSTALLATION OF ALL PRODUCTS, INCLUDING EARTHWORK, PAVING AND PLUMBING.
- B. COORDINATE TO ENSURE THAT ELECTRICAL POWER SOURCE IS IN PLACE. C. COORDINATE INSTALLATION WITH WORK SPECIFIED IN OTHER SECTIONS.
- D. COORDINATE WITH THE LANDSCAPE CONTRACTOR TO ENSURE PLANT MATERIAL IS UNIFORMLY WATERED IN ACCORDANCE WITH INTENT

SHOWN ON DRAWINGS. PART 2 - PRODUCTS

2.1 MATERIALS

- B. REFER TO CONSTRUCTION DRAWINGS AND NOTES. C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN
 - D. PVC PIPE: CLASS 200 SPR 21

 - E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"

 - F. 24V WIRE SIZE 14, TYPE UF
 - G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON
 - H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION -COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.

PART 3 - EXECUTION

3.1 INSPECTION:

- A. SITE CONDITIONS: a. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL
- CHECK AND VERIFY ALL SIZE DIMENSIONS. b. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLECT.
- c. COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.

3.2 PREPARATION A. PHYSICAL LAYOUT:

- a. PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALKS AND WALLS
- b. PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS. c. ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR
- OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. B. WATER SUPPLY:
- a. IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
- b. CONNECTIONS SHOULD BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS, CONTRACTOR SHALL VERIEY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.

3.3 INSTALLATION

- A. TRENCHING a. DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN
- b. REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING

EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF

- AND AFTER LAYING OF PIPE. c. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL
- PRESSURE SUPPLY LINES. d. PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
- e. PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
- f. NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.

B. BACKFILL

- a. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS. FREE FROM LARGE CLODS, STONES OR STICKS.
- b. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER

CONSTRUCTION ARE NECESSARY, THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.

- TRENCHING AND BACKFILL UNDER PAVING:
- a. ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALTIC PAVING, OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.

D. ASSEMBLIES

- a. INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.
- b. MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED BEFORE APPLYING
- c. ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON HARDENING PIPE DOPE OR TEFLON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED, LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED. USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.
- E. LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER.
- F. WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TAPE THEM TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPLICES WATERPROOF.
- G. AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE DRAWINGS. EACH REMOVE CONTROL VALVE SHALL BE WIRED TO ONE STATION OF THE CONTROLLER.
- H. REMOTE CONTROL VALVES: a. INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE
- SIZED ACCORDING TO THE DRAWINGS. b. INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S
- c. WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR

FLUSHING OF SYSTEM:

SPECIFICATIONS.

a. AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.

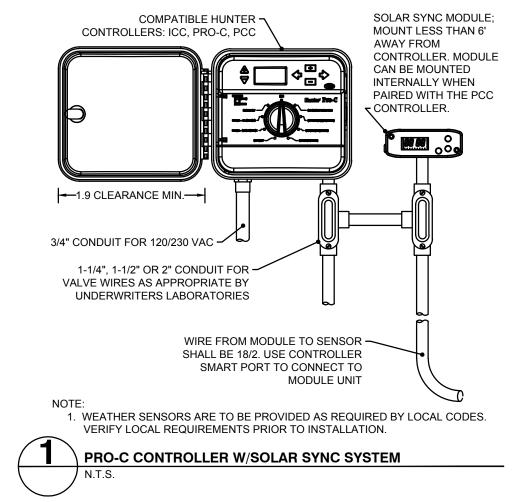
b. SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE

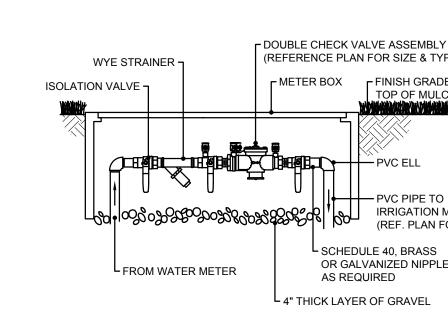
SYSTEM HAS BEEN ACCOMPLISHED. J. SPRINKLER HEADS:

- a. INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD CONDITIONS.
- b. SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM

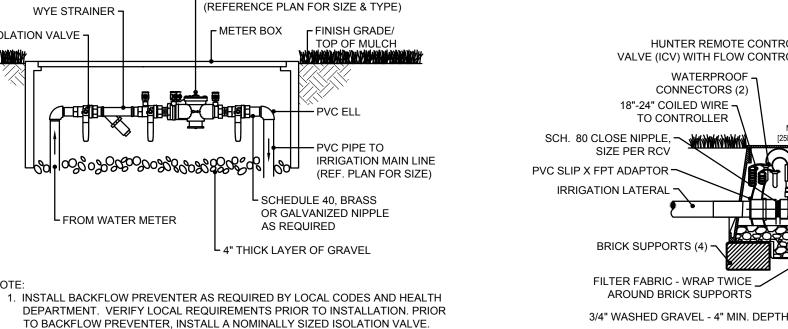
- RECOMMENDED BY THE MANUFACTURER.
- c. ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.

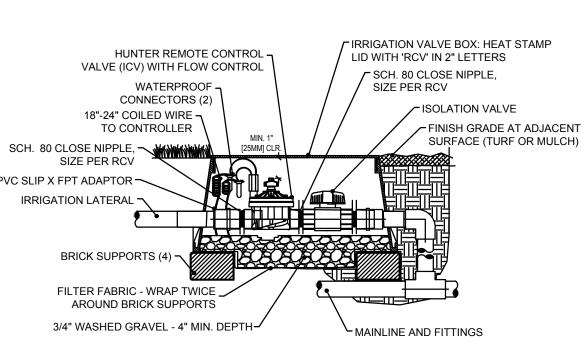
- A. THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT,
- REPLACE JOINT OR JOINS AND REPEAT TEST. B. A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD
- C. WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.
- D. UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS. END OF SECTION





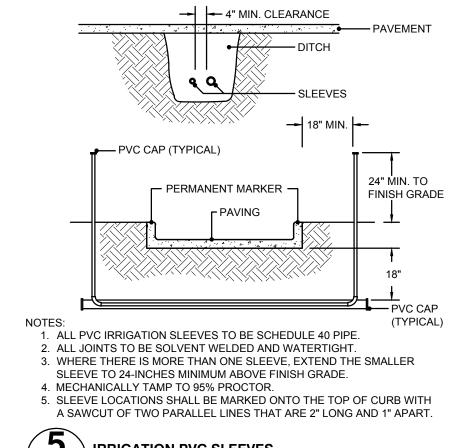
DOUBLE CHECK ASSEMBLY

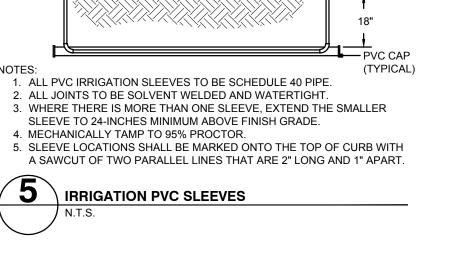


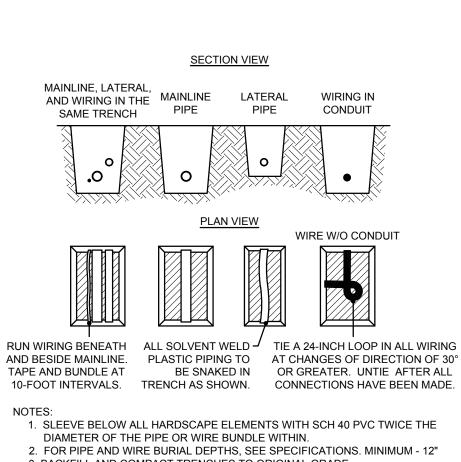


IN-LINE VALVE (ICV) WITH ISOLATION VALVE

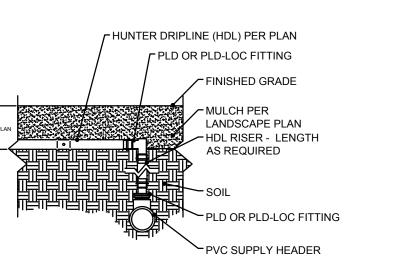
IN CLEAR VIEW WHEN POPPED UP.

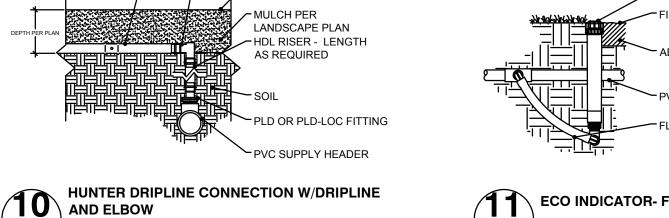


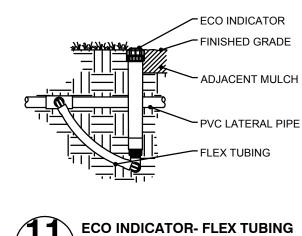


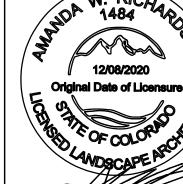








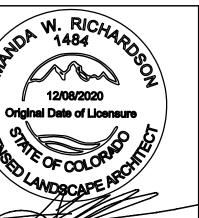




IRRIGATION SPECIFICATIONS AND DETAILS

JACK'S RESTAURANT

9155 PARK MEADOWS DRIVE CITY OF LONE TREE, COLORADO



5300 TOWN & COUNTRY BOULEVARD, SUITE 150 FRISCO, TEXAS 75034

ENGINEER

DEC FILE NO. SSUE DATE 1/12/24 105616 CITY FILE NO SHEET NO.

