GENERAL CIVIL NOTES

GENERAL NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIALS SO AS TO MEET OR EXCEED PROJECT SPECIFICATIONS AND CITY OF ADDISON CODES AND ORDINANCES. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL APPLICABLE PERMITS FOR THIS PROJECT, UNLESS OTHERWISE AGREED.
2. EXISTING UTILITIES SHOWN ARE ASSUMED FROM INFORMATION AVAILABLE AND ARE NOT GUARANTEED TO BE COMPLETE AND ACCURATE. THE CONTRACTOR SHALL CALL FOR LOCATES AND MAKE THE NECESSARY ARRANGEMENTS AND COMPLY WITH REQUIREMENTS AND SPECIFICATIONS OF THE RESPECTIVE UTILITIES TO BE CUT, MOVED, RELOCATED AND/OR RECONNECTED TO AN EXISTING FACILITY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY AND MARK THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.
4. ALL WORK SHALL BE DONE TO THE LINES, GRADES, AND ELEVATIONS SHOWN ON THESE DRAWINGS. BASIC HORIZONTAL AND VERTICAL CONTROL POINTS, ESTABLISHED BY THE ENGINEER ARE SHOWN ON THESE PLANS. THESE POINTS SHALL BE USED AS DATUM FOR WORK UNDER THIS PROJECT. ALL ADDITIONAL SURVEY, LAYOUT, OR MEASUREMENT WORK SHALL BE PERFORMED BY THE CONTRACTOR AS A PART OF THE WORK UNDER THIS CONTRACT.
5. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITY LINES, PAVING, DRIVEWAYS, CURBS, WALKS, STEPS, RETAINING WALLS, FENCES, IRRIGATION SYSTEMS, AND OTHER SURFACE AND SUBSURFACE STRUCTURES, TOGETHER WITH ALL SOD AND SHRUBS AFFECTED BY HIS CONSTRUCTION OPERATIONS. RESTORATION OF ALL DAMAGED PROPERTY TO ITS ORIGINAL CONDITION SHALL BE PERFORMED BY AND AT THE EXPENSE OF THE CONTRACTOR.
6. CONTRACTOR(s) SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING SURVEY MONUMENTS, INCLUDING ANY STAKE USED GRADING WORK AND/OR SITE LAYOUT WORK. RESTORATION OF DAMAGED SURVEY MONUMENTS, INCLUDING RESTAKING, SHALL BE AT THE EXPENSE OF THE RESPONSIBLE CONTRACTOR(s).
7. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AT THE JOB SITE AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY OMISSIONS, DISCREPANCIES, OR DIMENSIONAL ERRORS PRIOR TO BEGINNING OR FABRICATING ANY WORK, OTHERWISE THE CORRECTIONS & ASSOCIATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL DEMOLITION AND EXCAVATED MATERIALS SHALL BE LEGALLY DISPOSED OFF THE SITE BY THE GENERAL CONTRACTOR.
9. IN THE EVENT THAT UNCHARTED UTILITIES OR OTHER UNFORESEEN FIELD CONDITIONS REQUIRE MODIFICATIONS OF THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
10. ALL CONCRETE PAVEMENT AND SIDEWALKS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH AS SPECIFIED IN THESE PLANS.

ACCESSIBILITY STANDARDS

1. CONCRETE RAMPS, PARKING SIGNAGE, AND RAMP HANDRAILS SHALL CONFORM WITH TEXAS ACCESSIBILITY STANDARDS ADOPTED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION IN COMPLIANCE WITH THE TEXAS ARCHITECTURAL BARRIERS ACT, ARTICLE 9102, TEXAS CIVIL STATUTES.
2. ALL ACCESSIBILITY ROUTES FOR THIS PROJECT SHALL HAVE A SLOPE NOT GREATER THAN 1:20 (5%). ACCESSIBILITY ROUTES HAVING A SLOPE GREATER THAN 1:20 SHALL BE CONSIDERED A RAMP AND SHALL CONFORM WITH TEXAS ACCESSIBILITY STANDARDS.
3. ANY RAMP (EXCLUDING CURB RAMPS) HAVING A HORIZONTAL PROJECTION GREATER THAN 72-INCHES SHALL HAVE HANDRAILS ON BOTH SIDES CONFORMING WITH TEXAS ACCESSIBILITY STANDARDS.
4. FOUR (4) TOTAL ACCESSIBLE PARKING SPACES SHALL BE PROVIDED FOR THIS PROJECT AS SHOWN ON THE PLANS. ONE ACCESSIBLE PARKING SPACE SHALL BE DESIGNATED AS "VAN ACCESSIBLE".
5. ACCESSIBLE PARKING SIGNAGE SHALL BE PROVIDED FOR EACH ACCESSIBLE PARKING SPACE IN CONFORMANCE WITH TEXAS ACCESSIBILITY STANDARDS.

STORM WATER DISCHARGE AUTHORIZATION

1. A NOTICE OF INTENT (NOI) SHALL BE SUBMITTED TO THE ENVIRONMENTAL PROTECTION AGENCY (EPA) NO LESS THAN TWO DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN A CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
3. A COPY OF THE SWPPP, INCLUDING CONTRACTOR CERTIFICATIONS AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY AND FILED WITH THE CONSTRUCTION PLANS, AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
4. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO THE EPA WHEN THE SITE HAS 100% OF THE DISTURBED AREAS STABILIZED AND THE SITE NO LONGER HAS STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (CONSTRUCTION), OR THE "NOT" PERMITTEE OR CO-PERMITTEE NO LONGER HOLDS OPERATIONAL CONTROL OF THE CONSTRUCTION.

EROSION CONTROL

1. PRIOR TO COMMENCING GRADING OPERATIONS, EROSION CONTROL DEVICES SHALL BE INSTALLED AS INDICATED ON THE EROSION CONTROL PLAN OR OTHER AREAS AS MAY BE DIRECTED BY THE OWNER'S REPRESENTATIVE OR CITY INSPECTOR.
2. SITE ENTRY AND/OR EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ON A PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO A APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR.
3. TEMPORARY SEEDING OR OTHER METHOD OF STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE ON ANY AREA OF THE SITE, UNLESS ADDITIONAL CONSTRUCTION ON THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
4. UPON COMPLETION OF FINE GRADING, ALL AREAS NOT OTHERWISE PERMANENTLY STABILIZED SHALL BE SEEDED AND MAINTAINED UNTIL A UNIFORM COVERAGE OF 70% MINIMUM DENSITY, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, IS ACHIEVED.
5. EROSION CONTROL DEVICES MAY BE ADDED OR REDUCED IN THE FIELD AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
6. MAINTENANCE – EROSION CONTROL DEVICES SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT AT ANY EROSION CONTROL DEVICE SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6-INCHES, AND SHALL BE DISTRIBUTED ON A SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH IS DISTURBED. EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES WHICH MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION, OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE, BUT AR NOT LIMITED TO, EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASES, FUEL AND LUBE OIL, PESTICIDES, AND ANY SOLID WASTE MATERIALS.
8. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT AN "EARTH CONTAINMENT BERM" FOR STORAGE OF FUEL, MAINTENANCE, CLEANING, & WASH DOWNS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM.

9. REFER TO THE SWPPP DOCUMENT (IF APPLICABLE) FOR ANY ADDITIONAL INFORMATION.
10. ALL STORM DRAINAGE INLET OPENINGS AND SLOTTED DRAINS SHALL BE PROTECTED WITH EROSION CONTROL DEVICES UNTIL ALL PAVEMENT WORK IS COMPLETED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN-UP SEDIMENTATION ON PRIVATE DRIVES, ADJACENT PROPERTY, STREETS, AND UNDERGROUND STORM SEWER SYSTEMS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
12. TOP SOIL SHALL BE USED IN ALL LANDSCAPED AREAS.
13. ALL AREAS WITH EXPOSED SOIL DUE TO THE CONSTRUCTION SHALL BE RESODDED WITH BERMUDA SOD, UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT.

EARTHWORK

1. IMPORTED FILL MATERIAL USED UNDER CONCRETE PAVEMENTS, SHALL CONSIST OF LOW PLASTICITY MATERIAL HAVING A PLASTICITY INDEX (PI) BETWEEN 5 AND 15, A LIQUID LIMIT LESS THAN 40, AND CONTAINING A MINIMUM OF 15% FINES (MATERIAL PASSING THE 200 SIEVE). ALL FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8-INCHES IN THICKNESS AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY WITHIN PLUS 3% OF THE OPTIMUM MOISTURE CONTENT. THE ON-SITE MATERIAL MEETING THE SPECIFICATIONS OF THIS GENERAL NOTE, MAY BE USED UNDER PAVEMENTS.
2. ON-SITE MATERIAL NOT MEETING THE SPECIFICATIONS OF EARTHWORK NOTE 1, MAY BE USED AS FILL IN ALL AREAS EXCEPT BENEATH PAVEMENT AREAS, EXCLUDING SIDEWALKS. LIMESTONES MAY BE USED AS FILL PROVIDED THEY ARE PROPERLY PULVERIZED TO A MAXIMUM SIZE OF 4-INCHES IN DIAMETER, WITH AT LEAST 50-PERCENT PASSING A NUMBER 4 SIEVE.
3. FLEX BASE MATERIAL USED UNDER ASPHALTIC CONCRETE PAVEMENTS, SHALL CONSIST OF TYPE "A" CRUSHED OR BROKEN AGGREGATE HAVING A GRADATION OF GRADE ONE. THE MATERIAL SHALL CONTAIN A BINDER WITH A PLASTICITY INDEX (PI) BETWEEN 4 AND 12, A LIQUID LIMIT LESS THAN 40 IN ACCORDANCE WITH ASTM D-4318. MATERIAL RETAINED ON THE No. 4 SIEVE SHALL HAVE A PERCENT WEAR OF NOT MORE THAN 45 ACCORDING TO ASTM C-131. THE MATERIAL WHEN TESTED UNDER THE WET BALL FOR DETERMINING THE DISINTEGRATION OF FLEXIBLE BASE MATERIALS, TEX-116-E SHALL NOT DEVELOP MORE THAN 50% SOIL BINDER. THE MATERIAL SHALL MEET THE REQUIRED GRADATION SPECIFICATIONS IN ACCORDANCE WITH TEX-110-E. THE FLEX BASE MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SPECIFICATION SECTION 2230 – AGGREGATE BASE.
4. CONCRETE PAVEMENT SUBGRADE PREPARATION SHALL BE PERFORMED AS FOLLOWS:

   a) STRIP THE TOP LAYER OF TOPSOIL, VEGETATION, & HEAVY ROOT MATERIAL.

   b) REMOVE AND DISPOSE OFFSITE ALL DEBRIS INCLUDING ALL EXISTING CONCRETE AND ASPHALT PAVEMENTS.

   c) ROUGH GRADE THE SITE TO THE REQUIRED ELEVATIONS AND THEN PROOF ROLL THE ENTIRE AREA TO VERIFY STABILITY. ANY SOFT OR YIELDING AREAS SHOULD BE UNDERCUT TO FIRM MATERIAL AND REPLACED WITH CONTROLLED MOISTURE CONTENT AND DENSITY.

   d) AFTER PROOF ROLLING, THE SUBGRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8-INCHES, AND THEN MIX IN HYDRATED LIME AT AN APPLICATION RATE OF 8% HYDRATED LIME BY DRY SOIL WEIGHT.

   e) THE HYDRATED LIME SHOULD MEET THE REQUIREMENTS OF ITEM 264 (TYPE A) IN THE TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES. THIS LIME SHOULD BE THOROUGHLY MIXED AND BLENDED WITH THE TOP 6-INCHES OF SUBGRADE AND COMPACTED TO AT LEAST 95-PERCENT OF ITS MAXIMUM STANDARD PROCTOR DRY DENSITY. THE MOISTURE CONTENT OF THE LIME MODIFIED MATERIAL AT THE TIME OF COMPACTION SHOULD BE WITHIN A RANGE OF MINUS 2 TO PLUS 4 PERCENT (-2% TO +4%) OF ITS OPTIMUM VALUE. MIXING, CURING AND COMPACTION OF THE LIME MODIFIED LAYER IS DESCRIBED IN ITEM 260 OF THE PREVIOUSLY MENTIONED TxDOT STANDARD SPECIFICATIONS.

   f) NONEXPANSIVE SELECT FILL MATERIAL SHALL BE PROVIDED TO OBTAIN THE REQUIRED FINISH GRADE ELEVATION, WITHOUT THE USE OF LEVELING SAND OR SAND CUSHION. THE USE OF SAND CUSHION FOR SUBGRADE LEVELING PURPOSES IS PROHIBITED.

   g) SELECT FILL SHOULD PLACED IN 8-INCH MAX LOOSE LIFTS AND UNIFORMLY COMPACTED TO A MINIMUM OF 95-PERCENT OF STD PROCTOR DENSITY WITHIN MINUS 1 TO PLUS 3-PERCENT (-1% TO +3%) OF THE SOIL'S OPTIMUM MOISTURE CONTENT.

6. THE SUBGRADE SHALL BE MAINTAINED IN A SMOOTH, COMPACTED CONDITION, IN CONFORMITY WITH THE REQUIRED PAVEMENT SECTION AND ESTABLISHED GRADE, UNTIL THE PAVEMENT IS PLACED, & SHALL BE KEPT WETTED DOWN SUFFICIENTLY IN ADVANCE OF PLACING ANY PAVEMENT TO ENSURE ITS BEING IN A FIRM AND MOIST CONDITION FOR AT LEAST TWO INCHES BELOW SURFACE OF THE PREPARED SUBGRADE. ONLY SUCH SUBGRADE AS IS NECESSARY FOR THE SATISFACTORY PROSECUTION OF THE WORK SHALL BE COMPLETED AHEAD OF THE PLACEMENT OF PAVEMENT. PROVIDE COMPLETE DRAINAGE OF THE SUBGRADE AT ALL TIMES.

PAVING

1. THE PAVEMENT SECTION FOR THE PARKING LOT SHALL CONSIST OF 4000 PSI CONCRETE OVER COMPACTED LIME TREATED SUBGRADE. SEE CIVIL SHEET C103 FOR THE SPECIFIED PAVEMENT THICKNESS AND REINFORCEMENT. A 6-INCH INTEGRAL CURB SHALL BE PLACED WITH THE PAVEMENT. SEE CIVIL SHEET C602 FOR PAVING DETAILS.
2. THE CONCRETE SIDEWALKS SHALL CONSIST OF 4-INCH THICK 4000 PSI CONCRETE, REINFORCED WITH #3 BARS AT 18-INCH CENTERS EA WAY.
3. ALL JOINTS, INCLUDING EXPANSION JOINTS WITH REMOVABLE TACK STRIPS, SHALL BE SEALED WITH JOINT SEALANT.
4. SAWED CONTROL JOINTS SHALL BE PROVIDED AT 15ft CENTERS EACH WAY, AND FILLED WITH HOT RUBBER JOINT SEALING COMPOUND.
5. REINFORCING STEEL SHALL BE NEW DOMESTIC BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60, AND SHALL BE SUPPORTED BY BAR CHAIRS.
6. MANHOLES, WATER VALVES, METERS, CLEANOUTS, ETC. MAY BE BOXED OUT OR ISOLATED USING EXPANSION JOINT FILLER. THE MINIMUM LENGTH OF EACH SIDE OF BOX OUT SHALL BE 24-INCHES.
7. SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI-318.
2. THE MATERIALS AND PROPERTIES OF CONCRETE SHALL MEET THE APPLICABLE REQUIREMENTS IN THE ACI MANUAL OF CONCRETE PRACTICE. THE CONCRETE SHALL HAVE A MINIMUM MODULUS OF RUPTURE OF 600 PSI AT 28 DAYS AS DETERMINED BY THE STANDARD TEST METHOD FOR STRENGTH OF CONCRETE (USING SIMPLE BEAM WITH THIRD POINT FLEXURAL LOADING) ASTM C78-84.
3. CONCRETE REINFORCING BARS SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A615 GRADE 60, EXCEPT STIRRUPS WHICH MAY BE NEW DOMESTIC STEEL CONFORMING TO ASTM A615, GRADE 40.
4. CONCRETE IN THE FOLLOWING AREAS SHALL HAVE SAND AND GRAVEL OR CRUSHED STONE AGGREGATES, TYPE I OR TYPE III PORTLAND CEMENT, AND THE DESIGNATED COMPRESSIVE STRENGTH IN 28 DAYS. NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33-74. THE CONCRETE SHALL WEIGH NOT LESS THAN 145 PCF, NOR MORE THAN 150 PCF:

   a) PAVEMENT.................................... 4000 PSI
   b) SIDEWALKS.................................. 4000 PSI

5. ALL CONCRETE SHALL CONTAIN A 1-INCH MAXIMUM NOMINAL COURSE AGGREGATE.
6. CONCRETE SLUMP SHALL BE IN THE RANGE OF 5-INCH MAX & 2-INCH MINIMUM.
7. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A TEXAS REGISTERED ENGINEER.
8. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE:

   a) UNIFORM SURFACE IN CONTACT WITH THE GROUND....... 3"

9. LAP CONTINUOUS REINFORCING BARS 36-BAR DIAMETERS. ALL LAPS SHALL BE TIED IN TWO PLACES MINIMUM.
10. TACK WELDING ON REBAR WILL NOT BE PERMITTED. HEAT SHALL NOT BE USED IN THE FABRICATION OR INSTALLATION OF REINFORCEMENT.
11. CONCRETE WORK SHALL BE SUBJECT TO QUALITY ASSURANCE TESTING AND INSPECTIONS.
12. CLEAR CONCRETE CURING/SEALER SHALL BE USED OVER THE CONCRETE PAVEMENT.

INSPECTIONS AND UNDERGROUND UTILITIES

1. CAUTION!!! CONTACT DIG TESS AT (800) 395-0440 AND/OR OTHER UTILITY LOCATING SERVICES AT LEAST 48-HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
2. CONTACT CITY OF ADDISON FOR INSPECTIONS PRIOR TO CONCRETE PLACEMENT.

TESTING

1. THE CONTRACTOR AS PART OF THE SCOPE OF HIS WORK SHALL CONTRACT THE SERVICES OF AN INDEPENDENT TESTING LABORATORY DESIGNATED BY THE OWNER TO PROVIDE TESTING SERVICES FOR THIS PROJECT AS FURTHER DESCRIBED BELOW. THE COST FOR THESE TESTING SERVICES SHALL BE INCLUDED IN THE BASE BID.

   a) PROVIDE ADEQUATE SAMPLES FOR DETERMINATION OF MOISTURE DENSITY RELATIONSHIPS AND PLASTICITY INDEX (PI) AT ON-SITE MATERIALS, IMPORTED FILL MATERIAL AND DRAINAGE AGGREGATE.

   b) SUBMIT COMPLETE LABORATORY ANALYSIS OF SOIL MATERIAL PROPOSED FOR FILL MATERIAL.

   c) ESTABLISH MOISTURE DENSITY RELATIONSHIP OF IN-PLACE SUBGRADE IN ACCORDANCE WITH ASTM D-698.

   d) ESTABLISH MOISTURE DENSITY RELATIONSHIP OF PROPOSED SELECT FILL IN ACCORDANCE WITH ASTM D-698.

   e) PERFORM PI TEST ON PROPOSED SELECT FILL MATERIAL TO CONFIRM CONFORMANCE WITH THE PROJECT SPECS IN ACCORDANCE WITH ASTM D-4318.

   f) GRADATION OF DRAINAGE AGGREGATE IN ACCORDANCE WITH ASTM C-136.

   g) THE COMPLETED SUBGRADE SHALL BE TESTED FOR COMPACTION AND MOISTURE CONTENT AT THE RATE OF ONE TEST PER 1000 SQUARE FEET BUT IN NO CASE LESS THAN A TOTAL OF FIVE TESTS FOR THE PROJECT.

   h) DURING THE PROGRESS OF THE WORK, CAST TEST CYLINDERS TO MAINTAIN A CHECK ON THE COMPRESSIVE STRENGTHS OF THE CONCRETE BEING PLACED.

   i) FOUR TEST CYLINDERS SHALL BE TAKEN FROM A REPRESENTATIVE PORTION OF THE CONCRETE BEING PLACED FOR EVERY 150 CUBIC YARDS OF CONCRETE PAVEMENT PLACED, BUT IN NO CASE SHALL LESS THAN TWO SETS OF CYLINDERS BE TAKEN FROM ANY DAY'S PLACEMENT.

   j) AFTER THE CYLINDERS HAVE BEEN CAST, THEY SHALL REMAIN ON THE JOB SITE UNDISTURBED FOR 24-HOURS AND THEN TRANSPORTED, MOIST CURED, AND TESTED BY THE TESTING LABORATORY.

   k) TWO OF THE CYLINDERS IN EACH SET SHALL BE TESTED IN SEVEN DAYS AND THEN, IF IN THE OPINION OF THE OWNER'S REPRESENTATIVE THE SEVEN DAY TEST RESULTS ARE LOW ENOUGH, THE OTHER TWO CYLINDERS IN EACH SET MAY BE TESTED IN 28-DAYS.

   l) IF THE 28-DAY TEST RESULTS INDICATE DEFICIENT STRENGTH, THE CONTRACTOR MAY, AT HIS OPTION AND EXPENSE, CORE THE PAVEMENT IN QUESTION AND HAVE THE CORES TESTED BY AN APPROVED LABORATORY TO COMPARE WITH THE RESULTS OF THE CYLINDER TESTS.

   m) THE OWNER SHALL MAKE THE FINAL DETERMINATION OF ACCEPTANCE OR NOT IN THE CASE OF DEFICIENT CONCRETE STRENGTH.

UTILITIES

1. THE UTILITY SERVICES FOR THIS PROJECT ARE SHOWN ON SHEET C102. COORDINATE THESE PLAN WITH THE PROJECT'S MEP PLANS.

RIGHT-OF-WAY CONCRETE PAVEMENT CONSTRUCTION

THE INTENT OF THIS SPECIFICATION IS TO DESCRIBE THE MINIMUM ACCEPTABLE STANDARDS FOR THE CONSTRUCTION OF CONCRETE SIDEWALKS AND DRIVE APPROACHES IN THE TOWN OF ADDISON, TEXAS. THIS SPECIFICATION SUPERSEDES ALL OTHER NOTES AND SPECIFICATIONS IN THESE CIVIL PLANS, IN CASE OF CONFLICT.

1.1 THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR AS REQUIRED FOR THE CONSTRUCTION OF SIDEWALKS, IN ACCORDANCE WITH APPROVED PLANS, SPECIFICATIONS, AND THESE INSTRUCTIONS.

1.2 EXCAVATION: ALL EXCAVATION REQUIRED FOR THE CONSTRUCTION OF SIDEWALKS AND DRIVE APPROACHES SHALL BE IN ACCORDANCE WITH THE LINES AND GRADES AS ESTABLISHED BY THE TOWN OF ADDISON SIDEWALK PROCEDURE AND SPECIFICATIONS.

WHERE EXCAVATION FOR SIDEWALKS NECESSITATES THE REGRADING OF EXISTING BERMS, THE CONTRACTOR SHALL GRADE BERMS AS DIRECTED BY THE STREET SUPERINTENDENT AND REPLANT AS NEEDED. THIS WORK SHALL ALSO INCLUDE ALL NECESSARY BACK-FILLING AND GRADING BEHIND RETAINING WALLS.

THE CONTRACTOR SHALL PERFORM ALL NECESSARY FILLING, LEVELING, AND FINE GRADING AS REQUIRED TO BRING THE SUB-GRADE TO THE EXACT GRADES SPECIFIED; AND COMPACTED TO 95-PERCENT STANDARD PROCTOR DENSITY.

1.3 FORMS: FORMS SHALL BE OF WOOD OR METAL, AND OF A SECTIONAL LENGTH SATISFACTORY TO THE STREET SUPERINTENDENT. THEY SHALL BE FREE FROM WARP AND OF A DEPTH EQUAL TO THE THICKNESS OF THE FINISHED WORK. THEY SHALL BE SECURELY STAKED TO LINE AND GRADE, AND MAINTAINED IN A TRUE POSITION DURING THE DEPOSITING OF CONCRETE. FORMS SHALL BE SET TO PROVIDE POSITIVE DRAINAGE FOR THE FINISHED SIDEWALK.

1.4 REINFORCING STEEL: ALL STEEL REINFORCEMENT SHALL BE ACCURATELY PLACED, AND HELD IN PLACE DURING PROGRESS OF CONCRETE PLACEMENT BY SUCH EFFECTIVE MEANS (CHAIRS, TIES, ETC.) THAT IT SHALL NOT BE MOVED OUT OF TRUE POSITION. ALL REINFORCEMENT NECESSARY FOR A SECTION OF CONCRETE SHALL BE PLACED AND APPROVED BY THE STREET SUPERINTENDENT BEFORE ANY CONCRETE IS DEPOSITED IN THE SECTION. ALL STEEL MUST BE FREE FROM PAINT AND OIL; ALL LOOSE SCALE, RUST, DIRT, AND OTHER FOREIGN SUBSTANCES SHALL BE COMPLETELY REMOVED BEFORE USING. WHERE NEW CONCRETE SIDEWALKS ABUT EXISTING SIDEWALK, 3/8" STEEL REINFORCING BARS SHALL BE DOWELED INTO EXISTING SIDEWALK, A MINIMUM OF 6" AND SECURED WITH EPOXY.

1.5 PLACING: CONCRETE SHALL NOT BE PLACED WHEN THE TEMPERATURE IS BELOW 40-DEGREES FAHRENHEIT, AND FALLING; BUT IT MAY BE PLACED WHEN THE TEMPERATURE IS ABOVE 35-DEGREES FAHRENHEIT AND RISING. THE TEMPERATURE BEING TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT. WHEN CONCRETE IS BEING PLACED IN COLD WEATHER, THE CONTRACTOR SHALL HAVE AVAILABLE FOR IMMEDIATE USE A SUFFICIENT SUPPLY OF AN APPROVED COVERING MATERIAL, TO IMMEDIATELY PROTECT THE CONCRETE WHEN THE AIR TEMPERATURE FALLS TO 32-DEGREES FAHRENHEIT BEFORE THE CONCRETE HAS BEEN PLACED FOUR (4) HOURS. SUCH PROTECTION SHALL REMAIN IN PLACE DURING THE PERIOD OF NOT LESS THAN FIVE (5) DAYS. NEITHER SALT NOR CHEMICAL ADMIXTURES SHALL BE ADDED TO THE CONCRETE TO PREVENT FREEZING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY AND STRENGTH OF CONCRETE UNDER COLD WEATHER CONDITIONS, AND ALL CONCRETE DAMAGED BY FREEZING SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

1.6 FINISHING: CONCRETE SIDEWALKS SHALL BE FINISHED TO A TRUE, EVEN SURFACE. THEY SHALL BE TROWELED AND FINISHED WITH A LIGHT BROOM TRANSVERSE TO THE DIRECTION OF TRAFFIC. WHERE ADJACENT SIDEWALKS DIFFER FROM THIS STANDARD, NEW SIDEWALKS SHALL CONFORM TO ADJACENT SIDEWALKS, I.E., EXPOSED AGGREGATE. JOINTS AND ALL EDGES SHALL BE FINISHED TO A ONE-QUARTER (1/4) INCH RADIUS WITH SUITABLE EDGING TOOLS.

1.7 JOINTS: EXPANSION JOINTS FOR SIDEWALKS SHALL BE FORMED USING EXPANSION JOINT MATERIAL OF AN APPROVED TYPE AND SHAPED TO THE SECTION. EXPANSION JOINTS SHALL BE PLACED IN SIDEWALKS AT 40-FOOT INTERVALS, AND TO MATCH STREET EXPANSION JOINTS WHEN POSSIBLE. EXPANSION JOINTS SHALL ALSO BE PLACED AT ALL DRIVEWAYS, CURBS, FOUNDATIONS, OTHER SIDEWALKS, AND OTHER ADJACENT CONCRETE WORK. SIMILAR MATERIAL SHALL BE PLACED AROUND ALL OBSTRUCTIONS PROTRUDING INTO OR THROUGH SIDEWALKS. ALL EXPANSION JOINTS SHALL BE 1/2-INCH IN THICKNESS. SIDEWALKS SHALL BE JOINTED WITH A 1/4-INCH RADIUS TROWEL AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK. ANY EXPANSION MATERIAL EXTENDING ABOVE THE FINISHED WORK SHALL BE NEATLY TRIMMED TO THE SURFACE OF THE FINISHED WORK. ALL GAPS BETWEEN EXPANSION MATERIAL AND CURB, WALKS, OR OBJECTS PROTRUDING THROUGH SIDEWALK, SHALL BE SEALED WITH A SEALER APPROVED BY THE STREET SUPERINTENDENT.

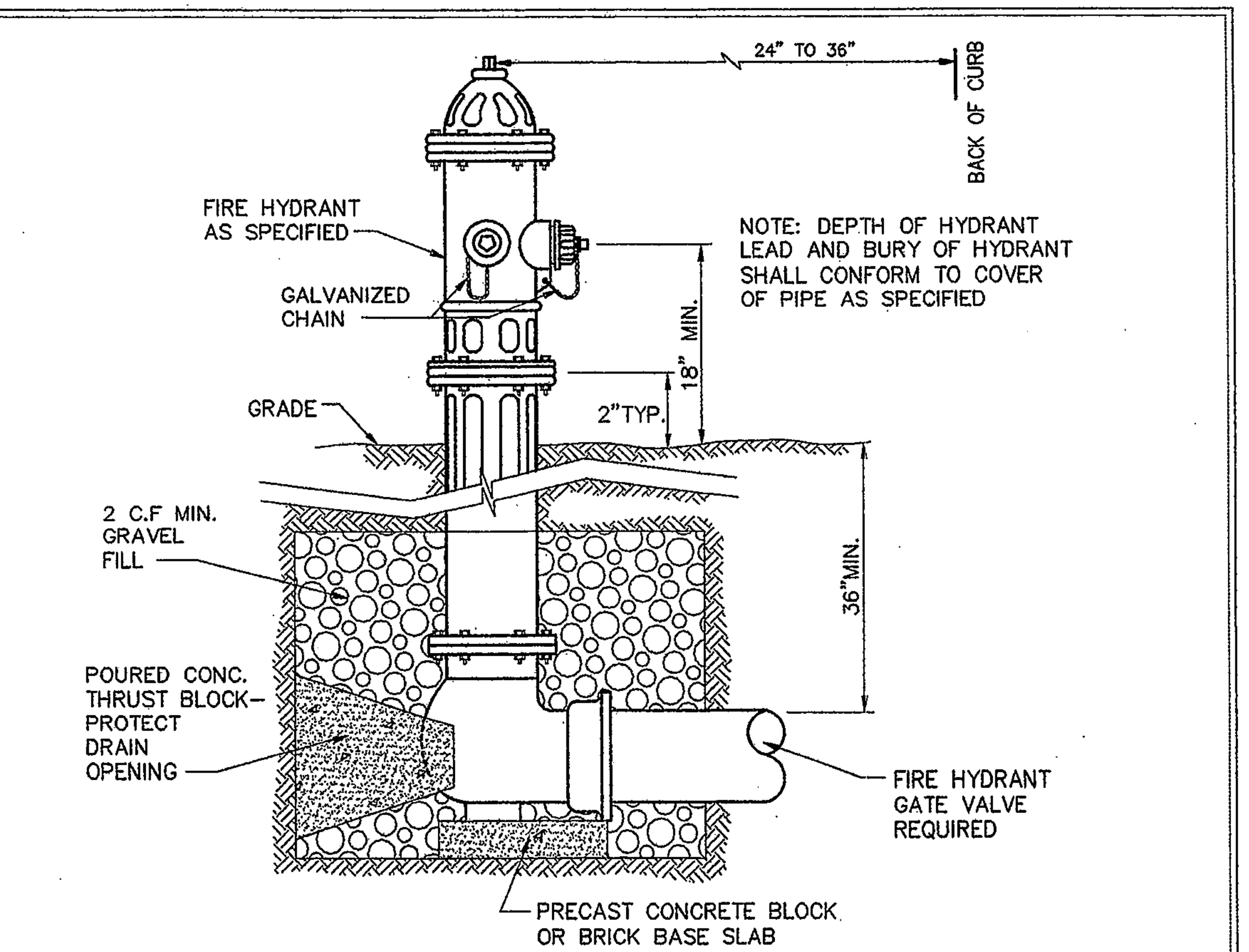
1.8 CURING: AFTER FINISHING OPERATIONS ARE COMPLETE, THE CONCRETE SURFACES SHALL BE SPRAYED WITH CURING COMPOUND. THE SURFACE OF THE CONCRETE SHALL BE KEPT THOROUGHLY DAMP BETWEEN THE COMPLETION OF THE FINISHING OPERATIONS, AND THE APPLICATION OF THE CURING COMPOUND. THE CURING COMPOUND SHALL BE APPLIED UNDER PRESSURE, BY MEANS OF A SPRAY NOZZLE, AT A RATE NOT TO EXCEED 200 SQUARE FEET PER GALLON. A MINIMUM OF 72-HOURS CURING TIME SHALL BE REQUIRED. SHOULD THE CONTRACTOR ELECT TO REMOVE THE FORMS BEFORE THE MINIMUM CURING TIME HAS ELAPSED, HE SHALL APPLY CURING COMPOUND TO THE NEWLY EXPOSED VERTICAL SURFACES. FORMS SHALL REMAIN IN PLACE AT LEAST 24-HOURS AFTER COMPLETION OF THE CONCRETE PLACEMENT.

1.9 TESTING: STANDARD 6"x12" TEST CYLINDERS SHALL BE USED. THREE CYLINDERS WILL BE MADE AS PER APPLICABLE A.S.T.M. SPECIFICATIONS FOR EACH 24 CUBIC YARDS POURED. ONE (1) WILL BE BROKEN IN 7-DAYS AND THE OTHER TWO IN 28-DAYS. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR MATERIALS AND LABOR INVOLVED IN FULFILLING THESE REQUIREMENTS. A CITY APPROVED TESTING LABORATORY SHALL CONDUCT ALL TESTING.

TOWN OF ADDISON WATER SERVICE

THE FOLLOWING ARE GENERAL REQUIREMENTS FOR WATER SERVICE IN THE TOWN OF ADDISON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT TO INSURE COMPLIANCE WITH ALL SPECIFICATIONS AND PROCEDURES AS SET FORTH BY THE TOWN OF ADDISON.

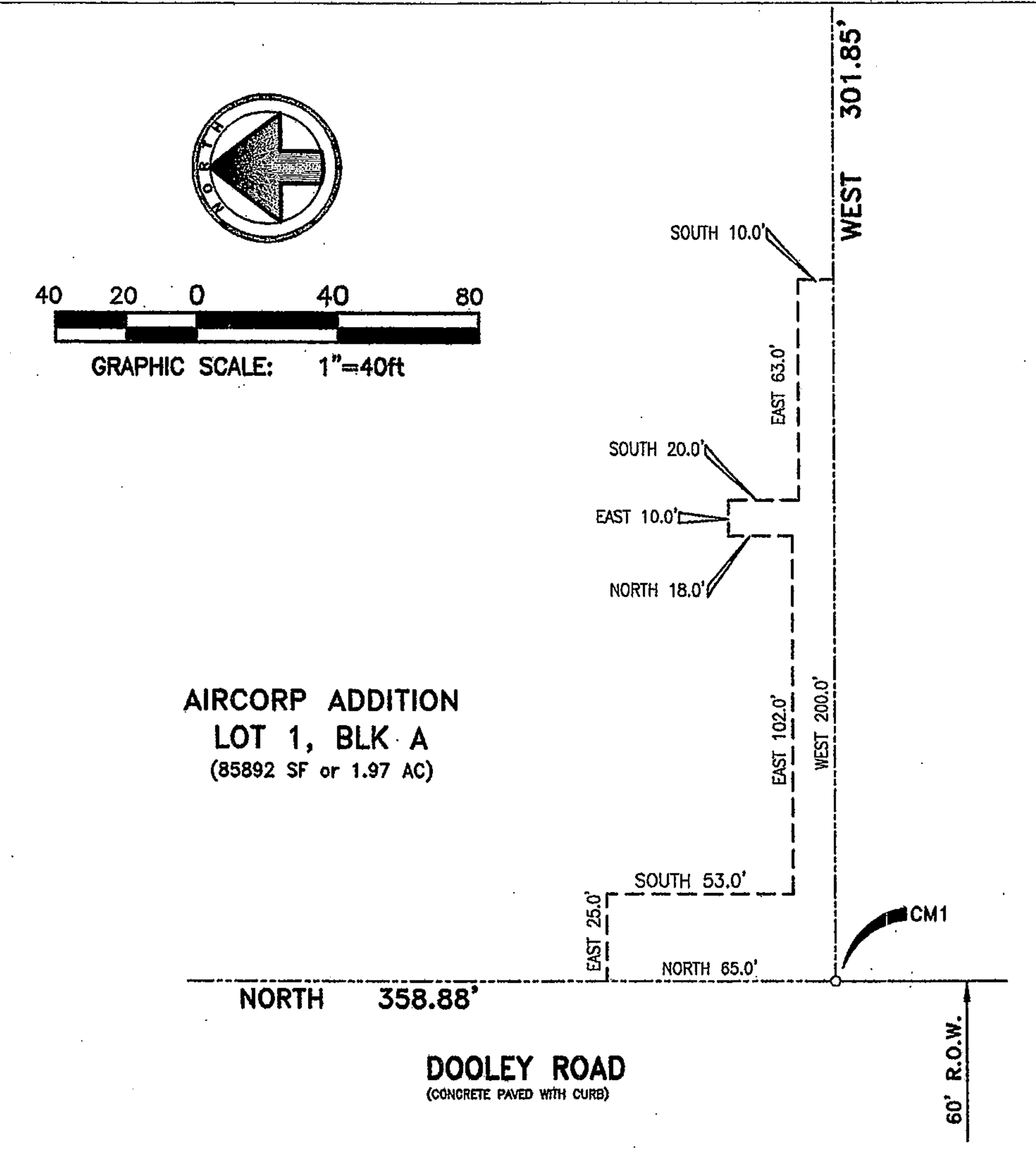
1. ALL NEW METERS INSTALLED IN THE TOWN OF ADDISON SHALL BE EQUIPPED WITH ELECTRONIC ENCODER REGISTERS, PROGRAMMED TO READ IN THOUSAND GALLON INCREMENTS, AND EQUIPPED WITH TOUCH-PAD READERS.
2. ALL COMMERCIAL UNIT APPLICATIONS FOR DOMESTIC USE HAVING FLOW DEMANDS GREATER THAN 160 G.P.M. SHALL EMPLOY EITHER A COMPOUND TYPE METER, OR A SINGLE-JET METER GREATER THAN OR EQUAL TO 2-INCH, AND CONFORMING TO TOWN OF ADDISON SPECIFICATIONS. COORDINATE WITH THE CITY FOR ACCEPTABLE MODELS.
3. ALL IRRIGATION SERVICES GREATER THAN OR EQUAL TO 1-1/2 INCH SHALL EMPLOY A TURBINE, OR SINGLE-JET TYPE METER CONFORMING TO THE ABOVE GUIDELINES (ITEM #2).
4. FIRE SERVICE GREATER THAN 2-INCH SHALL USE A DOUBLE CHECK DETECTOR ASSEMBLY, APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH (USC-FCCCHR), AND INSTALLED IN USC APPROVED ORIENTATIONS AND CLEARANCES.
5. ALL WATER PIPE SHALL CONFORM TO ANSI/AWWA C-909-98 FOR MOLECULARLY ORIENTED PVC PRESSURE PIPE FOR WATER DISTRIBUTION. PIPE SHALL BE 150 PSI MINIMUM CLASS RATING FOR DOMESTIC USE, AND 200 PSI MINIMUM CLASS RATING FOR FIRE LINE AND HYDRANT LINE APPLICATIONS.
6. ALL FIRE HYDRANTS INSTALLED FOR USE IN THE TOWN OF ADDISON SHALL MEET OR EXCEED AWWA STANDARD C 502-85 OR THE LATEST REVISION THEREOF. REFERENCE TOWN OF ADDISON SPECIFICATION FH-95-1.



NOTES:

1. ALL FIRE HYDRANTS INSTALLED FOR USE IN THE TOWN OF ADDISON SHALL MEET OR EXCEED AWWA STANDARD C 502-85 OR THE LATEST REVISION THEREOF. REFERENCE TOWN OF ADDISON SPECIFICATION No. FH-95-1.
2. CONCRETE SHALL BE PLACED OR POURED AGAINST UNDISTURBED SOIL.
3. ALL FIRE HYDRANT GATE VALVES SHALL BE ANCHORED TO THE MAIN AS DIRECTED BY THE CITY REPRESENTATIVE.
4. NO SEPARATE PAY FOR EXTENSION TO FINISHED GRADE.
5. ALL PORTIONS (EXCLUDING CHAINS) OF THE FIRE HYDRANT ABOVE GRADE SHALL BE PAINTED AS NOTED IN SPECIFICATION NO. FH-95-1.

F | FIRE HYDRANT DETAIL – TOWN OF ADDISON



A | UTILITY EASEMENT FOR LOT 1, BLOCK A – TOWN OF ADDISON

CARRERA consulting engineers, inc.
Structural, Civil, & Construction Engineering
3930 Meredith Avenue
Dallas, Texas 75211
Tel: (214) 330-4771
Fax: (214) 330-2167

Signed:
STATE OF TEXAS – LUIS D. CARRERA – 55182 – REGISTERED PROFESSIONAL ENGINEER
Date 6/2/2005

EXPIRATION DATE:

AFFIXATION DATE:

ADG
Addison Design Group, LLC
Architecture - Interior Architecture
1750 North Collins Blvd. Suite 214
Richardson, Texas 75080
Tel: (972) 437-4611 Fax: (972) 671-9191

AIRCORP
15900 DOOLEY ROAD
ADDISON, TEXAS

Job No.
00018

Plan No.

Date
31 JAN 2005

Drawn By
Ccei

Revisions
1 19 MAY 2005
2 02 JUN 2005

Sheet Title
GENERAL CIVIL NOTES, UTILITY ESMT, & FH DETAIL

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C600
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