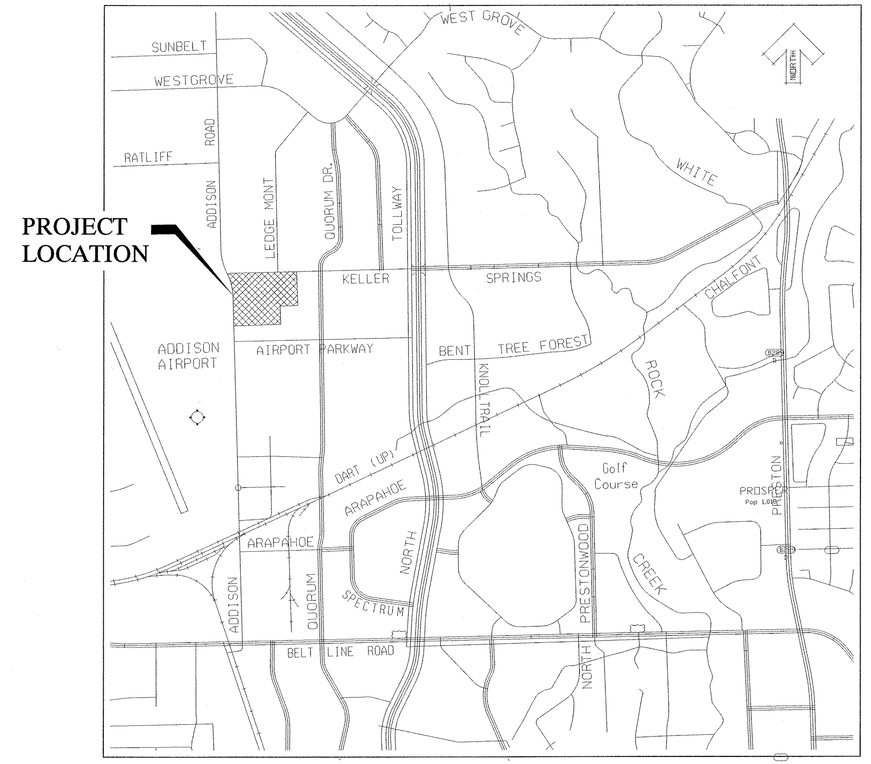
KELLER SPRINGS LOFTS

LOFT APARTMENTS IN ADDISON
TOWN OF ADDISON, DALLAS COUNTY, TEXAS

PLANS SUBMITTAL/REVIEW LOG

PERMIT SET - NOT FOR CONSTRUCTION.	*08/05/2011*
PROJECT COORDINATION SET	*08/19/2011*
100% COORDINATION SET CITY SUBMITTAL #2	*08/26/2011*
100% COORDINATION SET CITY SUBMITTAL #3	*09/14/2011*
ISSUES FOR CONSTRUCTION	*10/11/2011*



VICINITY MAP
(NOT TO SCALE)

SHEET LIST	
SHEET NUMBER	SHEET TITLE
C1	COVER SHEET
	FINAL PLAT
C2	GENERAL NOTES
C2a	TOWN OF ADDISON WATER AND WASTEWATER REQUIREMENTS
C2b	TOWN OF ADDISON WATER AND WASTEWATER REQUIREMENTS
C3	DIMENSION CONTROL PLAN
C4	GRADING PLAN
C4a	PAVING PLAN
C5	DRAINAGE AREA MAP
C6	DETENTION POND CALCULATIONS
C7	DRAINAGE CALCULATIONS
C8	STORM SEWER PLAN
C8a	TREE DRAIN PLAN
C9	STORM SEWER PROFILES
C10	WATER & WASTEWATER PLAN - PROFILE
C10a	ELECTRICAL SITE PLAN
C11-11a	POLLUTION CONTROL PLAN
C12-12b	PAVING DETAILS
C13-C14	STORM WATER DETAILS
C15-C20	JUNCTION STRUCTURE DETAILS
C21-C22a	WATER DETAILS
C23	WASTEWATER DETAILS
C24	UTILITY DETAILS

PREPARED FOR:

Embrey Partners, Ltd.

1020 NE Loop 410, Ste 700
San Antonio, Texas 78209

PREPARED BY:

Kimley-Horn and Associates, Inc.

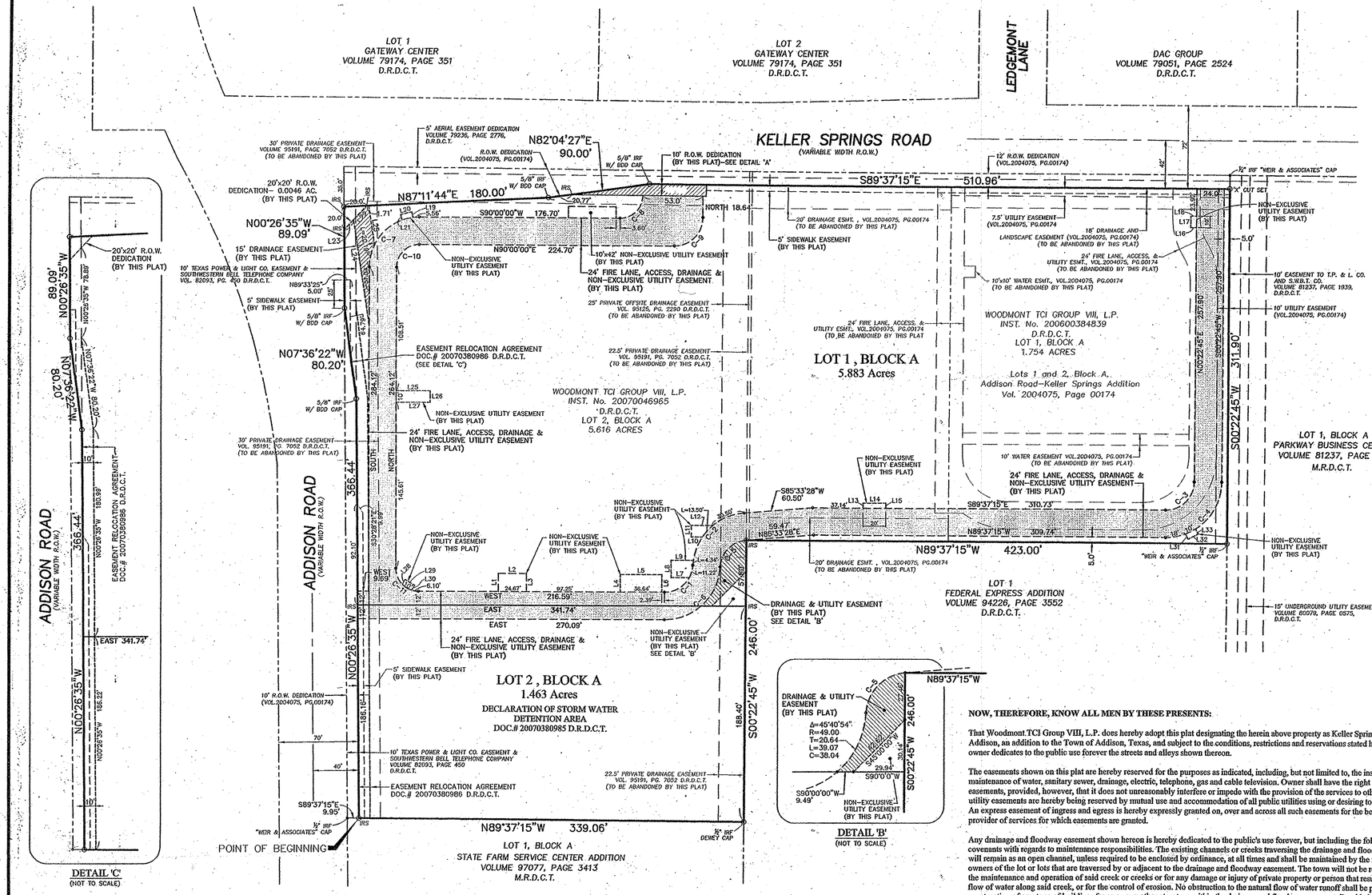
12700 Park Central Drive, Suite 1800, Dallas, TX 75251-1516 972-770-1300
Firm Registration No. F-928

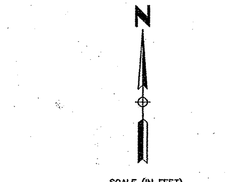
OCTOBER 11, 2011
PW# 2006-001

STATE OF TEXAS
DAVID E. MEYERS
91512
REGISTERED
PROFESSIONAL ENGINEER
10-11-2011

"Record Drawings"
These drawings have been revised to show those changes during the construction process reported by the contractor to Kimley-Horn and Associates, Inc. and considered to be significant. These drawings are not guaranteed to be "As-Built", but are based on the information made available.

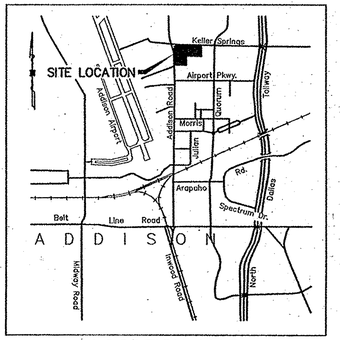
9-10-2013
DATE:
BY:



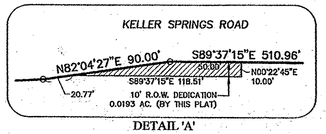


BASIS OF BEARINGS / DIRECTIONAL CONTROL:

THE FINAL PLAT OF ADDISON ROAD-KELLER SPRINGS ROAD ADDISON, AS RECORDED IN VOLUME 2004075, PAGE 00174, DEED RECORDS OF DALLAS COUNTY, TEXAS.



LOCATION MAP
NTS



DETAIL 'A'

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	CB	CHORD
C-1	86°38'51"	25.00'	37.81'	N46°40'34"E	34.31'
C-2	82°12'15"	49.00'	70.30'	N44°27'17"E	64.43'
C-3	90°00'00"	25.00'	39.27'	N45°22'45"E	35.36'
C-4	90°00'00"	49.00'	76.97'	S45°22'45"W	69.30'
C-5	82°12'15"	25.00'	35.87'	S44°27'10"W	32.87'
C-6	86°38'51"	49.00'	74.10'	N46°40'34"E	67.24'
C-7	90°00'00"	44.00'	69.12'	S45°00'00"W	62.23'
C-8	89°58'48"	20.00'	31.41'	N45°00'36"E	28.28'
C-9	90°00'00"	25.00'	39.27'	S45°00'00"W	35.36'
C-10	90°00'00"	20.00'	31.42'	N45°00'00"E	28.28'
C-11	90°00'00"	20.00'	31.42'	S45°00'00"E	28.28'

LEGEND:

IRF	IRON ROD FOUND
IRS	⅝" IRON ROD SET WITH "HUITT-ZOLLARS" YELLOW PLASTIC CAP
(CM)	CONTROL MONUMENT

LINE	LENGTH	BEARING
L1	15.86'	NORTH
L2	24.67'	EAST
L3	15.86'	SOUTH
L4	15.36'	NORTH
L5	36.64'	EAST
L6	15.36'	SOUTH
L7	16.20'	WEST
L8	15.00'	NORTH

LINE	LENGTH	BEARING
L9	19.75'	EAST
L10	9.87'	WEST
L11	10.00'	NORTH
L12	18.87'	EAST
L13	4.44'	NORTH
L14	20.00'	EAST
L15	4.57'	SOUTH
L16	5.00'	N89°37'15"W

LINE	LENGTH	BEARING
L17	10.00'	N00°22'45"E
L18	5.00'	S89°37'15"E
L19	5.00'	N13°45'23"W
L20	9.98'	S76°14'37"W
L21	5.00'	S13°45'23"E
L22	16.89'	N43°22'34"E
L23	11.97'	N43°22'34"E
L24	93.52'	N08°33'32"W

LINE	LENGTH	BEARING
L25	30.00'	WEST
L26	10.00'	NORTH
L27	30.00'	EAST
L28	5.00'	S31°47'57"W
L29	9.90'	N58°12'03"W

LINE	LENGTH	BEARING
L30	5.00'	N31°47'57"E
L31	5.00'	N26°30'53"W
L32	9.98'	N63°29'07"E
L33	5.00'	S26°30'53"E

THENCE in an easterly direction, along the north line of said Lot 1 and 2, and the south right-of-way line of Keller Springs Road the following:

North 87 degrees 11 minutes 44 seconds East, a distance of 180.00 feet to a 5/8 inch iron rod found with BDD cap for a corner;

North 82 degrees 04 minutes 27 seconds East, a distance of 90.00 feet to a 5/8 inch iron rod found with BDD cap for corner;

South 89 degrees 37 minutes 15 seconds East, passing at a distance of 265.96 feet, the common north corner of said Lots 1 and 2, and continuing for a total distance of 510.96 feet to an x cut set in concrete for the northeast corner of said Lot 1, said point being on the west line of Lot 1, Block A, Parkway Business Center I, an addition to the Town of Addison, Texas, as recorded in Volume 81237, Page 1939, (D.R.D.C.T.);

THENCE South 00 degrees 22 minutes 45 seconds West, departing the south right-of-way line of Keller Springs Road and along the east line of said Addison Road-Keller Springs Road Addition, and the west line of said Parkway Business Center I, a distance of 311.90 feet to a 1/2 inch iron rod found with plastic cap stamped "Weir & Associates" for the southeast corner of Lot 1 of said Addison Road-Keller Springs Road Addition, said point also being the northeast corner of Lot 1, Federal Express Addition, an addition to the Town of Addison, Texas, as recorded in Volume 94226, Page 3552, (D.R.D.C.T.);

THENCE North 89 degrees 37 minutes 15 seconds West, departing the west line of said Parkway Business Center I and along the south line of said Addison Road-Keller Springs Road Addition, and north line of said Federal Express Addition a distance of 423.00 feet to a 5/8 inch iron rod set with yellow plastic cap stamped "Huitt-Zollars" for a corner, said point also being the northwest corner of said Federal Express Addition;

THENCE South 00 degrees 22 minutes 45 seconds West, along the west line of said Federal Express Addition, and the east line of Addison Road-Keller Springs Addition, a distance of 246.00 feet to a 1/2 inch iron rod found with plastic cap stamped "Dewey" for the most southerly southeast corner of Lot 2 of said Addison Road-Keller Springs Road Addition, said point also being the northeast corner of Lot 1, Block A, of said State Farm Service Center Addition;

THENCE North 89 degrees 37 minutes 15 seconds West, along the north line of said State Farm Service Center Addition, and the south line of said Addison Road-Keller Springs Road Addition a distance of 339.06 feet to POINT OF BEGINNING and containing 7.370 acres of land, more or less.

OWNER'S CERTIFICATE

Being a tract of land situated in the G.W. FISHER SURVEY, Abstract No. 482, Town of Addison, Dallas County, Texas and being all of Lots 1 and 2, Block A, Addison Road-Keller Springs Addition, an addition to the Town of Addison, Texas, as recorded in Volume 2004075, Page 174, and being all of two tracts of land as described in Instrument to Woodmont TCI Group VIII, L.P., a Texas limited partnership as recorded under Instrument No.'s 200600384839 and 20070046965, all of the Deed Records of Dallas County Texas (D.R.D.C.T.) and being more particularly described as follows;

BEGINNING at a 5/8 inch iron rod set with yellow plastic cap stamped "Huitt-Zollars" at the southwest corner of said Lot 2, Block A, the same being on the east right-of-way line of Addison Road (as established by said plat recorded in Volume 2004075, Page 174) said corner being on the north line of Lot 1, Block A, State Farm Service Center Addition, an Addition to the City of Addison, Texas, according to the Plat recorded in Volume 97077, Page 3143, of the Deed Records of Dallas County, Texas (D.R.D.C.T.);

THENCE in a northerly direction, along the west line of said Lot 2 and the east right-of-way line of Addison Road the following:

North 00 degrees 26 minutes 35 seconds West, a distance of 366.44 feet to a 5/8 inch iron rod found with BDD cap for a corner;

North 07 degrees 36 minutes 22 seconds West, a distance of 80.20 feet to a 5/8 inch iron rod found with BDD cap for corner;

North 00 degrees 26 minutes 35 seconds West, a distance of 89.09 feet to a 5/8 inch iron rod set with yellow plastic cap stamped "Huitt-Zollars" for the northwest corner of said Lot 2 and the intersection of the east right-of-way line of said Addison Road with the south right-of-way line of Keller Springs Road (a variable width right-of-way as established by said plat recorded in Volume 2004075, Page 174);

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That Woodmont TCI Group VIII, L.P. does hereby adopt this plat designating the herein above property as Keller Springs Lofts Addison, an addition to the Town of Addison, Texas, and subject to the conditions, restrictions and reservations stated hereinafter, owner dedicates to the public use forever the streets and alleys shown thereon.

The easements shown on this plat are hereby reserved for the purposes as indicated, including, but not limited to, the installation and maintenance of water, sanitary sewer, drainage, electric, telephone, gas and cable television. Owner shall have the right to use these easements, provided, however, that it does not unreasonably interfere or impede with the provision of the services to others. Said utility easements are hereby being reserved by mutual use and accommodation of all public utilities using or desiring to use the same. An express easement of ingress and egress is hereby expressly granted on, over and across all such easements for the benefit of the provider of services for which easements are granted.

Any drainage and floodway easement shown hereon is hereby dedicated to the public's use forever, but including the following covenants with regards to maintenance responsibilities. The existing channels or creeks traversing the drainage and floodway easement will remain as an open channel, unless required to be enclosed by ordinance, at all times and shall be maintained by the individual owners of the lot or lots that are traversed by or adjacent to the drainage and floodway easement. The town will not be responsible for the maintenance and operation of said creek or creeks or for any damage or injury of private property or person that results from the flow of water along said creek, or for the control of erosion. No obstruction to the natural flow of water runoff shall be permitted by construction of any type of building, fence or any other structure within the drainage and floodway easement. Provided, however, it is understood that in the event it becomes necessary for the town to channelize or consider erecting any type of drainage structure in order to improve the storm drainage, then in such event, the town shall have the right, but not the obligation, to enter upon the drainage and floodway easement at any point, or points, with all rights of ingress and egress to investigate, survey, erect, construct or maintain any drainage facility deemed necessary by the town for maintenance or efficiency of its respective system or service.

Water main and sanitary sewer easements shall also include additional area of working space for construction and maintenance of the systems. Additional easement area is also conveyed for installation and maintenance of manholes, cleanouts, fire hydrants, water service and sewer services from the main to curb or pavement line, and the descriptions of such additional easements herein granted shall be determined by their locations as installed.

This plat is approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Addison, Texas.

WOODMONT TCI GROUP VIII, L.P., a Texas limited partnership

BY: _____

TITLE: Sr VP

WITNESS MY HAND at 9am in Dallas, Texas this the 14th day of January, 2008.

STATE OF TEXAS :
COUNTY OF DALLAS :

BEFORE the undersigned authority, a Notary Public in and for State of Texas on this day personally appeared, Jim Duffy, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 14th day of January, 2008.

_____
NOTARY PUBLIC IN AND FOR STATE OF TEXAS

My commission expires: May 22, 2011

WALLACE DUNWOODY
Notary Public, State of Texas
My Commission Expires
May 22, 2011

CONFORMED COPY
OFFICIAL PUBLIC RECORDS
John F. Warren County Clerk
Dallas County TEXAS
January 22, 2008 11:52:09 AM
FEE: $33.00
20080022312

SURVEYOR'S CERTIFICATE

I, ERIC J. YAHOUDY, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this plat from an actual on the ground survey of the land, and the monuments shown hereon were found and/or placed under my personal supervision in accordance with the platting rules and regulations of the City Plan Commission of the Town of Addison.

for Huitt-Zollars, Inc.

_____ 1/16/2008
ERIC J. YAHOUDY
Registered Professional Land Surveyor
Texas Registration No. 4862

STATE OF TEXAS REGISTERED ERIC JOHN YAHOUDY 4862 PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS :
COUNTY OF DALLAS :

BEFORE the undersigned authority, a Notary Public in and for State of Texas on this day personally appeared, Eric J. Yahoudy, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 10th day of January, 2008.

Tamara Hansen
NOTARY PUBLIC IN AND FOR STATE OF TEXAS

My commission expires: 10-04-2010

TAMARA HANSEN
NOTARY PUBLIC
State of Texas
Comm. Exp. 10-04-2010

CERTIFICATE OF APPROVAL

APPROVED THIS 10th day of July, 2008, by the City Council of Addison, Texas.

Mayor

City Secretary

THE PURPOSE OF THIS RE-PLAT IS TO CHANGE LOTS, ABANDON EXISTING PLATTED EASEMENTS AND TO ADD A FIRE LANE, ACCESS, DRAINAGE AND UTILITY EASEMENT.

FINAL PLAT
KELLER SPRINGS LOFTS ADDITION
LOT 1 & LOT 2, BLOCK A

BEING A RE-PLAT OF LOTS 1 & 2, BLOCK A
ADDISON ROAD - KELLER SPRINGS ADDITION
TOWN OF ADDISON, DALLAS COUNTY, TEXAS
7.370 ACRES SITUATED IN THE
G.W. FISHER SURVEY, ABSTRACT No. 482

JANUARY 2008

PREPARED FOR
WOODMONT TCI GROUP VIII, L.P.
1800 VALLEY VIEW LANE, SUITE 300 - DALLAS, TEXAS 75231
PHONE (469) 522-4371

PREPARED BY
HUITT-ZOLLARS
Huitt-Zollars, Inc. Dallas
3131 McKinney Avenue, Suite 600
Dallas, Texas 75204-2489
Phone (214) 871-3311 Fax (214) 871-0757

H:\PROJ\01376801\DWG\3765_FINALPLAT.dwg

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS, THE TOWN OF ADDISON PUBLIC WORKS' "STANDARD CONSTRUCTION DETAILS" AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS.

3. CONTRACTOR SHALL CONTACT ALL FRANCHISE UTILITY COMPANIES TO HAVE THEM LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND DEPTH OF ALL FRANCHISE UTILITY SERVICES AND ANY REQUIRED RELOCATION AND/OR EXTENSIONS. SERVICES SHOWN ON THE PLANS ARE CONCEPTUAL.

4. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE VARIOUS PAY ITEMS FOR INSTALLATION OF PIPE.

5. THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY RECORDS AND PLANS AND ARE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC AND PRIVATE UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THEIR EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED FACILITY GRADES CONFLICT WITH EXISTING UTILITY GRADES.

6. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY, INCLUDING, BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, TREES, LAWN SPRINKLER AND IRRIGATION SYSTEMS AT NO COST TO THE OWNER. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT (UNLESS OTHERWISE NOTED) AND IS NOT A SEPARATE PAY ITEM.

7. THE CONTRACTOR SHALL REMOVE SURPLUS MATERIAL FROM THE PROJECT AREA. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND IS NOT A SEPARATE PAY ITEM.

8. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.

9. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE APPROVED CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.

10. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.

11. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.

12. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE FINAL CONNECTION OF SERVICES.

13. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUM PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.

14. ALL HORIZONTAL DIMENSIONS GIVEN ARE TO FACE OF CURB AND TO PIPE CENTERLINES, UNLESS OTHERWISE NOTED ON PLANS.

15. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATION AND INSTALLATION OF FRANCHISE UTILITIES NECESSARY FOR ON AND OFF SITE CONSTRUCTION.

16. THE CONTRACTOR SHALL TOPSOIL, SEED AND FERTILIZE ALL AREAS DISTURBED BY CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NEEDED INCLUDING TEMPORARY IRRIGATION TO ENSURE FULL COVERAGE OF GRASSING. UNLESS OTHERWISE NOTED, PRIVATE LAWN AREAS AND PARKWAYS IN FRONT OF PRIVATE LAWN AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLACED WITH BLOCK SOD OF A SIMILAR GRASS TO THAT EXISTING. ALL SEEDED OR SODDED AREAS SHALL RECEIVE SIX(6) INCHES OF TOPSOIL. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

17. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH, THE AREAS SHALL THEN BE SEEDED, IRRIGATED, AND STABILIZED AS SPECIFIED IN THE PLANS, AND MAINTAINED UNTIL SOIL IS STABILIZED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE STABILIZED AND MULCHED AS SHOWN ON THE LANDSCAPE, GRADING, AND EROSION CONTROL PLANS.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

19. SOD MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE SWPPP MUST BE MADE READILY AVAILABLE AT THE TIME OF AN ON-SITE INSPECTION TO: THE EXECUTIVE DIRECTOR; A FEDERAL, STATE, OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, GRADING PLANS, OR STORMWATER MANAGEMENT PLANS; LOCAL GOVERNMENT OFFICIALS; AND THE OPERATOR OF A MUNICIPAL SEPARATE STORM SEWER (MS4) RECEIVING DISCHARGES FROM THE SITE.

21. ANY ENTITY THAT MEETS THE DEFINITION OF A "PRIMARY OPERATOR" FOR A LARGE CONSTRUCTION ACTIVITY (FIVE OR MORE ACRES) SHALL BE RESPONSIBLE FOR COMPLETING AND SUBMITTING A NOTICE OF INTENT (NOI) AND A NOTICE OF TERMINATION (NOT) WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).

22. THE CONTRACTOR MUST CONSTRUCT AND MAINTAIN A PERMANENT STABLE PROTECTIVE COVER (GRASS) FOR EROSION AND SEDIMENT CONTROL ON ALL LAND SURFACES EXPOSED OR DISTURBED BY CONSTRUCTION OF THE PERMITTED PROJECT. THE PROTECTIVE COVER MUST BE INSTALLED WITHIN FOURTEEN DAYS AFTER FINAL GRADING OF THE AFFECTED LAND SURFACE. A PERMANENT STABLE COVER MUST BE ESTABLISHED WITHIN 60 DAYS OF IT'S INSTALLATION.

23. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE AS-BUILT PLANS IDENTIFYING ALL DEVIATIONS OR VARIATIONS OF ORIGINAL PLANS. AS-BUILT PLANS ARE SUBSIDIARY TO ALL OTHER BID ITEMS AND SHALL NOT BE PAID FOR AS A SEPARATE LINE ITEM.

24. DURING CONSTRUCTION, ALL MATERIAL TESTING SHALL BE COORDINATED WITH THE TOWN OF ADDISON CONSTRUCTION INSPECTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE TOWN STANDARD SPECIFICATIONS. ALL SOILS TESTING IS THE RESPONSIBILITY OF AND WILL BE PAID FOR BY THE CONTRACTOR. MATERIAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY.

25. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING. CONSTRUCTION STAKING SHALL BE PERFORMED BY A REGISTERED PUBLIC SURVEYOR IN THE STATE OF TEXAS.

26. ALL EXISTING TRAFFIC AND STREET SIGNS DISTURBED SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR.

27. ALL EXISTING SHRUBS, TREES, PLANTING, AND OTHER VEGETATION, OUTSIDE OF PROPERTY LIMITS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH EQUIVALENT MATERIAL BY THE CONTRACTOR AT NO ADDITIONAL COST.

28. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS OFFSITE FROM THE EXISTING ROADWAYS AND PROJECT SITE THAT ARE A RESULT OF THE PROPOSED CONSTRUCTION AS REQUESTED BY THE TOWN OF ADDISON. AT A MINIMUM, THIS TASK SHOULD OCCUR ONCE A WEEK.

29. CONNECTIONS TO EXISTING FACILITIES SHALL BE ACCOMPLISHED IN A NEAT AND PROFESSIONAL MANNER. WHEN FIELD CONDITIONS INDICATE ANY VARIANCE FROM DETAILED METHODS, THE CONTRACTOR SHALL PROVIDE COMPREHENSIVE AND DETAILED DRAWINGS (FOR APPROVAL) OF METHODS PROPOSED.

30. WATER SHALL NOT BE PERMITTED IN OPEN TRENCHES DURING CONSTRUCTION.

31. CONTRACTOR SHALL CONTACT THE DESIGNATED CONSTRUCTION INSPECTOR ASSIGNED TO THIS PROJECT AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.

32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRENCH SAFETY PLAN TO THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT AT THE TIME OF THE PRECONSTRUCTION MEETING, OR PRIOR TO BEGINNING CONSTRUCTION OF THESE IMPROVEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH TOWN STANDARDS, TEXAS STATE LAW, AND O.S.H.A. STANDARDS FOR ALL EXCAVATION IN EXCESS OF FIVE FEET IN DEPTH. NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT WITHOUT THE PRIOR SPECIFIC WRITTEN APPROVAL OF THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT, OR DESIGNATED REPRESENTATIVE. ONSITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

33. CONTRACTOR TO REVIEW DESIGN INTENT OF THESE PLANS AND SUBMIT REQUESTS-FOR-INFORMATION IN A TIMELY MANNER PRIOR TO COMMENCING THAT WORK.

34. ALL APPURTENANCES INSTALLED IN PAVEMENT AREAS SHALL BE ADJUSTED AS REQUIRED TO BE FLUSH WITH FINISHED PAVEMENT.

35. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR COMPLETING AND IMPLEMENTING TRAFFIC CONTROL PLAN.

GRADING NOTES

1. ALL CONSTRUCTION SHALL BE IN GENERAL ACCORDANCE WITH THESE PLANS, TOWN OF ADDISON STANDARD SPECIFICATIONS, THE GEOTECHNICAL REPORT AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS.

2. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREAS REFLECT TOP OF PAVEMENT SURFACE. ADD .50' TO PAVING GRADE FOR TOP OF CURB GRADE.

3. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY THE CONSTRUCTION MANAGER AND ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE.

4. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE SILT FENCES (OR OTHER METHODS APPROVED BY THE ENGINEER AND TOWN) AS REQUIRED TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR LOCAL EROSION, CONSERVATION, AND SILTATION REQUIREMENTS. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION. CONTRACTOR IS RESPONSIBLE FOR FILING A NOI AND A NOT WITH THE TNRCC. CONTRACTOR SOLELY RESPONSIBLE FOR ALL MANDATED SWPPP RECORD KEEPING AND REPORTING.

5. THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE TOWN AND ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

6. ALL EXCAVATING IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY THE GRADING CONTRACTOR AT HIS EXPENSE.

7. BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAVEMENT AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.

8. THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. THAT ARE TO REMAIN OR BE RELOCATED DURING ALL CONSTRUCTION PHASES.

9. EXISTING OFFSITE CONTOURS AS SHOWN ON THIS PLAN WERE TAKEN FROM A TOPOGRAPHIC SURVEY PREPARED BY OTHERS.

10. REFERENCE STRUCTURAL DRAWINGS AND SPECIFICATIONS AND THE GEOTECHNICAL REPORT FOR BUILDING PAD AND PAVING SUBGRADE INFORMATION.

11. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

12. GRADING CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.

13. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE NOMINATION OF THE TESTING LABORATORY AND THE PAYMENTS FOR SUCH TESTING SERVICES SHALL BE MADE BY THE CONTRACTOR. THE OWNER SHALL APPROVE THE LABORATORY NOMINATED TO DO THE TESTING OF MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED DOES MEET THE REQUIREMENTS OF THE TOWN'S SPECIFICATIONS AND THESE PLANS.

14. CONTRACTOR SHALL CALL 1-800-DIG-TESS AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION FOR FIELD LOCATIONS OF UTILITIES IN THE VICINITY OF THE SITE.

15. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF DISCREPANCY.

16. REFER TO DIMENSION CONTROL PLAN AND PLAT FOR HORIZONTAL DIMENSIONS.

17. REFER TO EROSION CONTROL PLAN FOR EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION. BEST MANAGEMENT PRACTICES (BMPs) SHOWN ARE SUGGESTIONS ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR BMP SELECTION, IMPLEMENTATION, AND MAINTENANCE.

18. NO TREE SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE. EXISTING TREES SHALL BE PRESERVED WHENEVER POSSIBLE.

19. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.

STORM WATER DISCHARGE AUTHORIZATION

1. PRIMARY OPERATORS MUST SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION, OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

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 TOWN BY THE CONTRACTOR AND FILED WITH THE CONSTRUCTION PLANS, AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.

4. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER OF THE DENSITY OF 70% HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

STORM SEWER NOTES

1. CONTRACTOR SHALL FIELD VERIFY THE VERTICAL AND HORIZONTAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CONSTRUCTION MANAGER IMMEDIATELY IF A CONFLICT IS DISCOVERED.

2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS, GRATE INLETS, AND ALL UTILITIES CROSSING THE STORM SEWER. FLOW LINES AND RIMS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE PROPOSED GRADE PRIOR TO CONSTRUCTION.

3. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.

4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS.

5. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND IMPLEMENTING A TRENCH PROTECTION PLAN FOR ALL OPEN TRENCH EXCAVATION.

7. USE 4 FOOT JOINTS WITH BEVELED ENDS IF RADIUS OF STORM SEWER IS LESS THAN 100 FEET.

8. ALL STORM SEWER LINES SHALL BE MINIMUM CLASS III RCP UNLESS OTHERWISE NOTED. CONTRACTOR TO CONTACT ENGINEER WITH QUESTIONS ABOUT PIPE MATERIAL PRIOR TO ORDERING.

9. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE TOWN OF ADDISON DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION ADDENDUM.

10. DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTIONS FOR NORTH CENTRAL TEXAS, AND ANY MATTER WHICH REQUIRES THE APPROVAL OF THE OWNER, MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORTATION OR HIS DESIGNEE BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES. ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.

11. FOR ADJUSTMENT OF UTILITIY APPURTENANCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND WASTEWATER MAINS IN AREA, CALL THE TOWN OF ADDISON (3) THREE WORKING DAYS PRIOR TO CONSTRUCTION.

12. STREETS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY OR EASEMENT SHALL BE CONSTRUCTED WITH THE TOWN OF ADDISON, STANDARD CONSTRUCTION DETAILS, FILE 251D-1, LATEST EDITION.

13. EMBEDMENT FOR ALL ONSITE SEWER LINES, PUBLIC OR PRIVATE, SHALL BE PER TOWN OF ADDISON STANDARD DETAILS.

WATER AND SANITARY SEWER NOTES

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS, THE TOWN OF ADDISON PUBLIC WORKS' "STANDARD CONSTRUCTION DETAILS" AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION.

2. ALL PROPOSED WIRING AND CABLING SHALL BE INSTALLED BELOW GROUND.

3. CONTRACTOR TO SEQUENCE CONSTRUCTION AS TO AVOID INTERRUPTION OF WATER OR SANITARY SEWER SERVICE TO SURROUNDING AREAS.

4. EXISTING MANHOLE TOPS, VALVE BOXES, ETC. ARE TO BE ADJUSTED AS REQUIRED TO MATCH PROPOSED GRADES.

5. CONTRACTOR SHALL CONTACT NECESSARY FRANCHISE UTILITY COMPANIES PRIOR TO CONSTRUCTION, IN ORDER TO LOCATE AND/OR DISCONNECT SERVICES.

6. FOR EACH SEWER AND WATER CROSSING, CENTER ONE JOINT OF SEWER PIPE ON THE EXISTING OR PROPOSED WATER MAIN.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND IMPLEMENTING A TRENCH PROTECTION PLAN FOR ALL OPEN TRENCH EXCAVATION.

8. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF TWO (2) FEET AND A MAXIMUM OF SIX (6) FEET BEHIND THE CURB LINE OF FIRE LANE AND STREET.

9. ANY WATER OR SANITARY SEWER SERVICE LOCATED OUTSIDE OF A STREET, ALLEY OR EASEMENT SHALL BE INSTALLED BY A PLUMBER AND BE INSPECTED BY CODE ENFORCEMENT.

PAVING AND STRIPING NOTES

1. ALL CONSTRUCTION SHALL BE IN GENERAL ACCORDANCE WITH THESE PLANS, TOWN OF ADDISON STANDARD SPECIFICATIONS, GEOTECHNICAL REPORT AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS.

2. BARRIER FREE RAMPS SHALL BE CONSTRUCTED AT ALL DRIVEWAY APPROACHES PER TOWN STANDARDS.

3. ALL SUB-GRADE SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF ASTM D698 DENSITY NEAR OPTIMUM MOISTURE CONTENT (0% TO +3%) UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

4. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN AGENCY, APPROVED BY THE OWNER, FOR TESTING MATERIALS. PROCUREMENT OF THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE, BY THE STANDARD TESTING PROCEDURES, THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENTS OF THE TOWN AND PROJECT SPECIFICATIONS.

5. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS.

6. SIGN LOCATIONS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON. CONTRACTOR SHALL REVIEW ALL TRAFFIC CONTROL DEVICES WITH THE TOWN OF ADDISON PRIOR TO INSTALLATION.

7. SEE IRRIGATION PLAN AND MEP PLANS FOR LOCATION OF PROPOSED SLEEVING AND CONDUITS.

8. CONTRACTOR TO INSTALL CONSTRUCTION JOINTS IN CONCRETE PAVEMENT AT ALL PC'S AND AS CONVENIENT TO PHASING OF POURS, WITH EXPANSION JOINTS EVERY 150 FEET IN BOTH DIRECTIONS AND SAWED DUMMY JOINTS EVERY 15 FEET IN BOTH DIRECTIONS.

9. CONTRACTOR TO SUBMIT A JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO THE BEGINNING OF ANY PAVING WORK.

10. ALL EXISTING CONCRETE SHOWN TO BE REMOVED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR OFF SITE.

11. ALL DISCREPANCIES FOUND BY CONTRACTOR RELATED TO UNDERGROUND UTILITIES OR OTHER APPURTENANCES SHALL BE RESOLVED TO THE SATISFACTION OF OWNER AND ENGINEER PRIOR TO PLACEMENT OF ANY PAVING.

12. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO THE LATEST EDITION OF THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).

13. ALL HANDICAP RAMPING, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT OF 1990.

14. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE TOWN OF ADDISON DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION ADDENDUM.

15. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. & T.A.S) EXIST. IN NO CASE SHALL HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. AND T.A.S. COMPLIANCE ISSUES.

16. DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, AND ANY MATTER WHICH REQUIRES THE APPROVAL OF THE OWNER, MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORTATION OR HIS DESIGNEE BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES. ASSUMPTION ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.

17. FOR ADJUSTMENT OF UTILITIY APPURTENANCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND WASTEWATER MAINS IN AREA, CALL THE TOWN OF ADDISON AT LEAST (3) THREE WORKING DAYS PRIOR TO CONSTRUCTION.

18. STREETS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE TOWN OF ADDISON, STANDARD CONSTRUCTION DETAILS, LATEST EDITION.

19. THE CONTRACTOR SHALL INSTALL ALL PAVEMENT MARKINGS. THEY SHOULD BE THERMOPLASTIC PER PUBLIC WORKS AND TRANSPORTATION STANDARD CONSTRUCTION DETAILS AND INSPECTED BY TOWN FORCES.

REFER TO TNRCC/TCEQ DESIGN GUIDELINES (CHAPTER 290) FOR ALL UTILITY CROSSINGS.

STOP!
CALL BEFORE YOU DIG
DIG TESS
1-800-DIG-TESS
(at least 72 hours prior to digging)

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

UTILITY CONTACTS

ONCOR ELECTRIC DELIVERY
CONTACT: KAREN EASTMEN 817-355-7050

AT&T TELEPHONE
CONTACT: BRUCE MASTERS 972-234-7003

ATMOS ENERGY
CONTACT: ANDREW MARSHALL 214-206-2703

TIME WARNER CABLE
CONTACT: CJ BRANDS 214-869-7702

WATER SYSTEM REQUIREMENTS

I. GENERAL:

A. Design criteria for all water systems shall comply with Texas Commission on Environmental Quality (TCEQ) Chapter 290 (Rules and Regulations for Public Water Systems), latest revision.

B. Permits from agencies other than the town must be submitted through the town.

C. The Engineer shall include on the design plans a summary of pipe sizes, pipe materials, and joint materials.

D. Profile elevations shall be provided for mains twelve-inch (12") in diameter and larger. Eight-inch (8") mains may be required to be profiled by the Public Works Department.

E. Where applicable, line sizes shall comply with the Water Distribution System Master Plan or subsequent revisions.

F. Water mains shall be sized and extended through the limits of a development to serve adjacent properties. In phased construction of thoroughfares, the water main shall be extended the entire length of the thoroughfare being constructed.

II. WATER MAIN LOCATION:

A. Water mains in right-of-way shall be installed in the street at five feet (5') from the face of curb on the opposite side of the wastewater main, or otherwise as directed by the Public Works Department.

B. Water mains shall be located at least five feet (5') from any tree, unless approved by the Public Works Department.

C. Water mains installed under creeks or ditches shall be protected by concrete encasement a minimum of ten feet (10') past the toe of the embankment on each side or otherwise as directed by the Public Works Department.

D. Water mains crossing under storm sewers shall have a minimum of eighteen inches (18") clearance below storm sewers. One segment of the water pipe shall be equidistant from the center line of the storm sewer.

E. Where a new water main crosses over a new non-pressure rated wastewater main or lateral, one segment of the water main shall be centered over the sanitary sewer main and there shall be a minimum of twenty-four inches (24") of clearance or otherwise as governed by TCEQ Chapter 290 requirements.

F. Where a new water main crosses under a new non-pressure rated wastewater main or lateral, the water main shall be encased in high density steel pipe in accordance with the Town of Addison Standard Construction Details and there shall be a minimum of six inches (6") of clearance or otherwise as governed by TCEQ Chapter 290 requirements.

III. WATER MAIN SIZING:

A. All water mains shall be a minimum of eight inches (8") in diameter or otherwise as shown on the Water Master Plan.

B. Six-inch (6") fire hydrant leads shall not exceed one hundred feet (100') unless otherwise allowed by the Public Works Department.

C. Water mains shall be extended to provide water to adjacent property as directed by the Public Works Department.

D. Dead end mains are not permitted unless otherwise allowed by the Public Works Department. For dead end mains allowed by the Public Works Department, a fire hydrant shall be installed at the end of the main for use by the Public Works Department.

IV. WATER MAIN MATERIALS:

A. All water mains twelve-inch (12") in diameter and smaller shall be AWWA C-900 PVC Pressure pipe with cast iron O.D. or when pipe penetrates meter vault walls it shall be ductile iron. Pipe joints shall be rubber ring and integral thickened bell, assembled with a factory supplied lubricant. Water mains shall have a minimum class rating of 165-psi for domestic use and a minimum class rating of 235-psi for fire line and hydrant lead applications. Joint material for PVC shall conform to ASTM F471.

B. All mains crossing under existing roadway must be installed by bore or otherwise as approved by the Public Works Department. Rust resistant steel casing minimum one-fourth-inch (1/4") thick shall be used with Raci patented casing spacers, or approved equal. No wood skids will be allowed.

C. All fittings shall be ductile iron, full bodied, mechanical joint type with restraining glands and have a minimum rated working pressure of 250 psi and be manufactured in the United States. Fittings shall be wrapped with 8-mil poly prior to backfill. Compact fittings shall not be permitted unless otherwise allowed by the Public Works Department.

D. All valves and fittings shall have concrete thrust blocks installed. Thrust blocking shall be minimum 3000 psi concrete and be able to withstand a minimum 200 psi test pressure.

E. All mains supplying fire sprinkler systems outside of utility easements shall be minimum 200 psi working pressure and U.L. listed.

F. Connections where the existing main is one or more sizes larger than the proposed main can be made with a full body stainless steel tapping sleeve and valve. In order to maintain a manageable parts inventory and working knowledge of tapping sleeve and valves, the following tapping sleeves are approved: Mueller, Ford and Smith Blair.

G. Connections to existing lines twenty-inch (20") or larger are not permitted unless allowed by the Public Works Department.

V. WATER MAIN CONSTRUCTION:

A. Line and grade stakes for construction of all water mains and services shall be furnished by the developer's Engineer or their designated representative. Property lines and corners must be properly staked to ensure correct alignment. The Town will not be liable for improper alignment or delay of any kind caused by improper or inadequate surveys by the developer or by interference of other utilities.

B. Waterlines shall be tested both bacteriologically and hydrostatically. Water mains shall be hydrostatically tested at 150 psi for four (4) hours. Fire lines shall be hydrostatically tested at 200 psi for two (2) hours.

C. All bleeder lines shall be removed upon completion of testing by removing the corporation stop and installing a brass plug in the tapping saddle.

VI. TRENCH REQUIREMENTS:

A. Embedment shall comply with NCTCOG Class "B+" embedment. A layer of geo-textile fabric shall be placed on top of the stone prior to the placement of the select or granular material. Finish backfill shall be native soil free of all rocks and clods greater than three inches (3") in diameter, compacted in six-inch (6") maximum loose lifts to a minimum of 95% Standard Proctor Density at zero to three percent (3%) of optimum moisture. Trenches under pavement may be backfilled with flowable fill with a minimum compressive strength of 400psi to the level indicated by the pavement thickness with the approval of the Public Works Department. A batch design shall be submitted for any flowable fill used within the public rights-of-way.

B. Locator tape shall be placed on top of the sand embedment.

C. The minimum cover to the top of the pipe shall be as follows:

1. Lines larger than sixteen-inch (16") shall have a minimum of six feet (6') of cover.
2. Sixteen-inch (16") mains shall have a minimum cover of five feet (5').
3. Twelve-inch (12") and smaller mains shall have a minimum cover of four feet (4').

VII. THRUST BLOCK REQUIREMENTS:

A. Concrete for blocking shall be class "B"

B. Pour concrete for block against undisturbed earth.

C. All anchor fittings to be concrete against thrust blocked. All ductile cast iron fittings and/or pipe to be polywrapped prior to pouring the thrust block.

D. Concrete shall not extend beyond joints.

VIII. VALVES:

A. Valves sixteen-inch (16") and under will be Resilient Seat Gate Valves (RSGV). All gate valves shall be of the resilient wedge type conforming AWWA C509, Standard for Resilient Seated Gate Valves, in its most current revision. In addition, all valves shall include the following design criteria:

1. In order to maintain a manageable parts inventory and working knowledge of valves, the following resilient seated gate valves are approved: Mueller A2360, AFC 2500 and AVK Series 25.
2. Wedge shall be cast or ductile iron, fully encapsulated in synthetic rubber.
3. Wedge rubber shall be molded in place and permanently bonded to the iron without screws, rivets or similar fasteners.
4. Wedge shall seat against seating surfaces arranged symmetrically about the centerline of the operating stem, so that seating is equally effective regardless of the direction of pressure imbalance across the wedge.
5. Valves for underground installations shall be non-rising stem type, opening counter-clockwise by means of a two-inch (2") square operating nut. Valves for installation in a vault shall be of the

rising stem type opening counter-clockwise by means of a hand wheel. The word "OPEN" and an arrow indicating direction to open shall be cast in the metal of the nut or hand wheel.

6. Stem shall be sealed by at least two O-rings. All stem seals shall be replaceable with the valve fully open and while subject to full rated pressure.
7. All nuts and bolts shall be stainless steel.
8. The waterway shall be smooth and shall have no depressions or cavities in the seat area where foreign material can lodge and prevent closure. The waterway shall be large enough to accept full size tapping cutter without damaging the interior of the valve.
9. The valve body and bonnet shall be epoxy coated, inside and out, with fusion-bonded epoxy. Coating shall conform to AWWA C550-90, Standard for Protective Interior Coatings for Valves and Hydrants.

B. Valves shall be placed in such a manner as to require preferably two (2), but not more than three (3) valves to shut down each segment, or as may be required to prevent shutting off more than one fire hydrant/service or no more than fifteen (15) residences in a single family residential district.

C. Valves shall be placed at or near the ends of mains in such a manner that a shut down can be made for a future main extension without causing loss of service on the existing main. A minimum of twenty feet (20') of main shall be installed past the valve.

D. Where four-inch (4") or larger fire lines are connected to town water lines, valves shall be installed on each side of the connection and on the fire line.

E. Valve boxes shall be provided for buried valves. These boxes shall be three (3) piece screw type cast iron of the extension type and shall be Mueller No. H-10360, Bass & Hayes 3 piece adjustable screw type, or East Jordan Iron Works 8560 with 6800 lid, or approved equal. The three (3) pieces shall consist of the top section, bottom section and cover.

F. Valve boxes located outside of paved areas require a reinforced concrete block twenty-four-inch by twenty-four-inch by six-inch (24" x 24" x 6") flush with finished grade.

G. All valves shall be marked with a saw or stamp on the curb or pavement with a "V". The "V" shall point to the location of the valve as follows: If the valve is in the paving, the "V" shall be marked upright; if the valve is outside the paving, the "V" shall be marked upside down.

H. Valves over five feet (5') deep will require extensions, or otherwise as directed by the Public Works Department.

IX. FIRE HYDRANTS:

All fire hydrants installed for use in the Town of Addison shall meet or exceed AWWA Standard C502-85 or the latest revision thereof. Fire hydrants shall have a 5¼" minimum valve opening. Rated working pressure shall be at least 150psi; test pressure shall be 300psi and hydrant capable of flowing 1000gpm (Class A). All hydrants shall be manufactured in the United States and shall be manufacture's best grade. Hydrant shall be warranted by the manufacturer for a minimum of 5 years. In addition, all hydrants shall include the following design criteria:

A. General Design

1. In order to maintain a manageable parts inventory and working knowledge of fire hydrants, the

following hydrants are approved: Mueller Super Centurion and AVK Series 27 Nostalgic Style.

2. All fire hydrants shall be of the three-way style consisting of two (2) opposing hose nozzles separated by one (1) pumper nozzle, dry barrel type.
3. A clearly visible arrow and the word "OPEN" shall be cast in relief on the top of the fire hydrant. The fire hydrant shall be opened by turning the operating nut in a counter-clockwise direction.
4. The operating nut shall be all bronze, one piece, pentagon measuring 1¼" from point to flat and at least 1¼" in height.
5. The manufacturer's name, size of main valve and year of manufacture shall be cast in relief on the upper barrel section and clearly visible to aid in the identification of repair parts.
6. Lower barrel shall have ground line markings cast in relief and clearly visible approximately two-inches (2") below the flange to aid in proper installation.
7. The fire hydrant shall be a "traffic model" with the upper and lower barrels joined at approximately two-inches (2") above ground line by a separate and breakable swivel flange providing for 360 degree rotation of upper barrel for proper nozzle facing. The "traffic model" safety flange shall employ unweakened stainless steel hex head bolts (AWWA C502, Sec. 3.2.17) and fasteners of sufficient strength to bear all test and operating pressures. The stem shall be two-piece, not less than 1¼" in diameter (excluding threading or machined areas) and shall be connected by a breakable stem coupling. The weakened portion of the coupling shall be below the coupling pins to eliminate failure due to excessive torque. All screws, pins, bolts or fasteners used in conjunction with the coupling shall be stainless steel. The coupling shall be made of stainless steel to eliminate failure due to electrolysis and corrosion. The coupling joint shall be located below the top of the lower barrel to prevent vehicle wheel or other forces being applied to stem, which would open the valve mechanism.
8. Shoe and barrel castings shall be fabricated of ASTM A-126, Class B gray iron or ductile iron ASTM A-536, but no combination thereof, assuring uniform strength of all cast components.

B. Site Requirements

1. Fire Hydrants shall be placed at a maximum spacing of three-hundred feet (300') along all streets and fire lanes.
2. Fire hydrant leads shall have a bury depth of between four feet (4') and five feet (5').
3. Valves shall be placed on all fire hydrant leads. It shall be a mechanical joint and flanged tee with a flanged end to mechanical joint gate valve so that the valve is anchored to the main. All mechanical joints shall use restraining glands.
4. Fire hydrants shall be installed so the breakaway point will be no less than two inches (2") and no greater than six inches (6") above the final grade elevation.
5. Fire hydrants shall be located a minimum of three feet (3') and a maximum of six feet (6') from the fire lane or roadway, based on the location of the sidewalk. The fire hydrant should generally not be located in the sidewalk. When possible, the fire hydrant should be kept at least eighteen inches (18") from any sidewalks.
6. All fire hydrants placed on private property shall be adequately protected as approved by the Public Works Department and the Fire Department and shall be in easements. All such

protection shall be the responsibility of the landowner on which the said fire hydrant is placed.

7. All fire hydrants shall be installed so that the steamer connection will face the fire lane or street or as directed by the Fire Department and/or the Public Works Department.
8. A three foot (3') wide non-erodible surface shall be placed around the fire hydrant and from the fire hydrant to the curb directly in front of the pumper nozzle.
9. Fire hydrants shall be located at street or fire lane intersections, when feasible. When placed at intersections or access drives to parking lots, fire hydrants shall be placed so that no part of the fire truck will block the intersection or parking lot access when connections to the fire hydrant are made.
10. Fire hydrants required by this article and located on private property shall be accessible to the Fire Department at all times.
11. A Blue Stimsonite, Fire-Lite reflector model 88-SSA (or approved other) shall be placed just off center of the street or fire lane opposite fire hydrants. At intersections, reflectors shall be placed on both roadways opposite fire hydrant.
12. In non-residential developments an eight-inch (8") lead will be required on all fire hydrants that are located more than one hundred feet (100') from the looped main.
13. The fire hydrant shall be set on the projection of the property line when possible.
14. Fire hydrants shall not be installed within nine feet (9') vertically or horizontally of any wastewater main, wastewater lateral, or wastewater service line regardless of construction.

C. Operation

1. Hose nozzles shall be 2½", pumper nozzle shall be four-inch (4") pumper gauge (40480). Chains between the fire hydrant and nozzle caps shall be omitted. Nozzle section shall allow for field replacement of damage threads without special tools, excavation or disturbing the ground joint line. Nozzles shall be fastened by mechanical means and secured to prevent nozzles from turning or backing out. Nozzle caps shall be provided with 1¼" pentagon nuts at least 1¼" in height, a recess provided at the inner end of thread for gasket retention. Centerline of lowest nozzle shall be at least eighteen-inches (18") above ground line.
2. Main valve closure shall be compression type, opening against line pressure and closing with the pressure. Main valve shall be 5¼" in diameter. A bronze seat ring shall thread into a bronze drain ring (or shoe bushing). This bronze shall be low-zinc (less than 16%) to minimize galvanic corrosion. Design shall allow for removal of seat, drain valve mechanism, internal rod and all working parts through the top of the hydrant without disturbing the ground line joint or the nozzle section of the hydrant.
3. Lubrication of the upper stem threads, operating nut threads, and upper and lower thrust collar bearing surfaces and O-ring stem seals shall be done automatically as the hydrant is opened. Lubricant shall be low viscosity, non-toxic, FDA approved oil. Oil reservoirs shall be separated from the waterway by two (2) O-rings.
4. The drain system shall consist of two (2) valves feeding two (2) external discharges. Drain system shall be so designed as to provide for both automatic and intentional force flushing at full line pressure. Drain valve mechanism and outlet shall be all bronze.

5. The interior surfaces of the shoe and lower main valve components shall be epoxy coated in compliance with AWWA Standard C-550. The shoe and lower barrel shall be connected by stainless steel bolts, nuts and fasteners of sufficient size and strength to bear all pressures and forces that the hydrant is subject to, including corrosion, for its warranted life.

D. Painting and Delivery

1. Hydrants shall be delivered with two (2) coats of primer on upper barrel (AWWA C-502 Sec. 4.2.3). Interior and exterior shall be painted as in AWWA C-502 Sec. 4, excluding the interior of shoe which shall be painted be as noted in Sec. 2.F.
2. Hydrants shall be complete in all details when supplied. Due and customary care shall be used in preparation for shipment to eliminate damage in handling or transit. Hydrants must be drained and completely closed before shipment.
3. Manufacturer shall supply an Affidavit of Compliance verifying that the hydrant and all materials used in its construction conform to the applicable requirements of the most current form of AWWA C502 and these supplementary specification, that all specified tests have been performed and that all test requirements have been met.

X. WATER SERVICES:

The service curb stop shall be installed at a depth of eight-inches (8") to twelve inches (12") below finished grade, usually in advance of paving. After paving, the contractor shall furnish and install the meter box. The meter box is to be set within the right of way or utility easement line at or near the center of the front of the lot to be served. No meter box shall be installed in an area paved for vehicular traffic and/or parking spaces. Minimum requirements for water services:

A. General Design

1. All Meters shall meet or exceed the American Water Works Association Standard C707-R92 for Encoder-Type Remote-Registration systems for Cold Water Meters when equipped with an open architecture radio MIU.
2. Allowable tap and meter sizes are as follows: ¾", 1", 1½", 2", 4", 6", 8", 10" and 12". All other sizes are prohibited unless specifically approved by the Public Works Department. Taps and meters shall be the same size unless specifically waived by the Public Works Department.
3. Water meter boxes shall be provided for each service as per the Town of Addison Standard Details. Water meter boxes for meters two inches (2") and smaller shall have a minimum depth of eighteen inches (18") and have four inches (4") to six inches (6") of grade 4 crushed stone and four inches (4") to six inches (6") of free airspace placed under the meter inside the box. Meter boxes and openings shall be large enough to allow access to and operation of all meter nuts/flanges/bolts and the curb stop without obstruction. Meters larger than two inches (2") are required to be in a concrete vault. Openings below the finished grade in the meter box shall be permanently closed.
4. The size of services for apartments, condominiums, or multi-family services will depend on the number of units served with a minimum of one (1) meter per building.
5. All service taps on existing water mains shall be inspected and approved by the Public Works Department.
6. Multiple meters manifold in parallel are not permitted. In such instances a single larger meter

shall be selected.

7. Bullhead connections are not permitted unless approved by the Public Works Department.
8. Domestic and fire service connections on fire hydrant leads or dead end mains shall not be permitted.
9. Meters shall be set horizontally level in all directions.
10. All irrigation meters, fire meters and meters four inches (4") or larger in size shall be turbine meters. All domestic meters two inches (2") or smaller in size shall be positive displacement meters, unless otherwise approved by the Public Works Department.

B. Water Services two inches (2") and smaller shall include the following design criteria:

1. The service saddle shall be of one of the following:
   a. Double-strap bronze with CC. (AWWA taper) threads: Mueller #BR2B, Ford #202B or McDonald #3825. Tap shall be set at 45° of vertical on the main line.
   b. Mueller Servi-Seal™ style 502, 504, 506 or 508; seven inch (7") minimum length.
   c. Ford Style FS303-CC.
2. Corporation stop with AWWA taper threads (CC) by conductive compression connection. Following is a list of approved corporation stops:
   a. For ¾" use Mueller H-15008, Ford F1000-G or McDonald 4701BT.
   b. For 1" use Mueller H-15008, Ford F1000-G or McDonald 4701BT.
   c. For 1½" use Mueller H-15013, Ford FB1000-G or McDonald 4701T.
   d. For 2" use Mueller B25008, Ford FB1000-G or McDonald 4701T.
3. 90° angle curb stop with lock-wing. Following is a list of approved curb stops:
   a. For ¾" and 1" use Mueller H-14258 or B24258, Ford KV43-332W-G or KV43-444W-G and McDonald 4646BT or 4606BT.
   b. For 1½" and 2" use Mueller H-14277, Ford FV43-666W-G or FV43-777W-G and McDonald 4646BT or 4606BT.
4. All companion flanges shall be elliptical brass and all bolts & nuts shall be grade 316 stainless steel, 5/8-11 x 2½" hex head.
5. The tapping saddle and corporation stop must be poly-wrapped (8 mil) and hand backfilled with sand to a depth of twelve inches (12"). Additional backfill may be placed by mechanical equipment and may consist of material free of rocks and clods exceeding three inches (3") in diameter. The Public Works Department shall inspect the installation of the polywrap and initial backfill.
6. Piping shall be type "K" copper, continuous from the corporation to the curb stop and completely embedded in sand for a distance of six inches (6") in all directions.

Kimley-Horn and Associates, Inc.
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Dallas, Texas 75251-1505 972-770-1300

No.	Revision	Date
1	ADDED TOWN GENERAL NOTES	8/26/11

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

TOWN OF ADDISON WATER AND WASTEWATER REQUIREMENTS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C2a

1

7. In-line curb-stops, meter yokes/setters, and/or meter risers are not permitted unless approved by the Public Works Department.

8. Gate valves on the inlet side of the meter are strictly prohibited.

XI. WATER METERS

All meters with top and bottom plates shall be made of bronze and equipped with electronic absolute encoded registers, programmed to read in thousand gallon increments, and equipped with touch-pad readers.

A. Domestic (potable) Use:

1. All 1.5" and smaller devices with flow capabilities ≤160 g.p.m. shall employ a nutating disc. Disc meters shall be Hersey 400 Series IIS™ or 500 Series IIS™, Sensus SRII, or Neptune T10.

2. All 2" and larger commercial unit applications for domestic use having flow demands greater than 160 g.p.m. shall employ a Hersey MVR™ turbine meter.

B. Irrigation services of any size shall employ a Hersey MVR™ turbine meter.

C. Fire Service:

1. Less than or equal to 2" meters shall be a Hersey MVR™ turbine meter.

2. Greater than 2" shall be either a Double Check Detector Assembly, or a Reduced Pressure Zone Detector Assembly. These assemblies shall be 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. The bypass or detector shall meet the requirement of the 1.5" or smaller domestic use written above.

XII. WATER EASEMENTS:

The following minimum width exclusive water easements are required when facilities are not located within public rights-of-way or easements:

A. Water mains eight inches (8") or larger in diameter shall be located within the center of a minimum fifteen-foot (15') water easement. Fire lines smaller than eight inches (8") in diameter shall be located within the center of a minimum ten-foot (10') water easement.

B. In residential developments, water mains shall not cross residential lots unless specifically approved by the Public Works Department, in which case the easement shall be located within a single lot.

C. Fire hydrants located outside of public rights-of-way shall be centered in a ten-foot by ten-foot (10' x 10') water easement.

D. Two-inch (2") and smaller meters serving multi-family residential and non-residential developments shall be set in a minimum five-foot by five-foot (5' x 5') water easement or in the right-of-way.

E. Meters larger than two inches (2") shall be in a minimum ten-foot by ten-foot (10' x 10') water easement if not located within the public right-of-way.

WASTEWATER SYSTEM REQUIREMENTS

I. GENERAL:

A. Design criteria for all wastewater systems shall comply with Texas Commission on Environmental Quality (TCEQ) Chapter 217 (Design Criteria for Domestic Wastewater Systems), latest revision.

B. Sizes and grades for wastewater mains shall be as required by the Town Engineer, and consideration shall be given as to possible extensions for future development. No wastewater main, other than laterals and force mains, shall be less than eight-inch (8") in diameter.

C. Permits from agencies other than the town must be submitted through the town.

D. All grades shall be shown to the nearest one-hundredth of a foot (0.01').

E. Where applicable, line sizes shall comply with the Wastewater Collection System Master Plan or subsequent revisions.

F. Wastewater mains shall be sized and extended through the limits of a development to serve adjacent properties. In phased construction of thoroughfares, the wastewater mains shall be extended the entire length of the thoroughfare being constructed.

G. Finished floors shall be set a minimum of one half foot (0.5') above the upstream manhole.

II. WASTEWATER MAIN LOCATION:

A. Wastewater mains in right of way shall be installed in the street at five feet (5') from the face of curb opposite side of the water main or otherwise directed by the Public Works Department. Wastewater mains are usually located in the center of the street. Each project is unique; therefore, no fixed rules will apply to all cases.

B. No public wastewater main shall be located at least five feet (5') from any tree unless approved by the Public Works Department.

C. Where a new non-pressure rated wastewater main or lateral crosses under a new water main, the wastewater main or lateral shall be embedded in cement stabilized sand for the total length of one pipe segment plus twelve inches (12") beyond the joint on each end and there shall be a minimum of twenty-four inches (24") of clearance or otherwise as governed by TCEQ Chapter 217 requirements.

III. WASTEWATER MAIN MATERIALS:

The material used for the wastewater main shall be designed for a minimum structural life cycle, of fifty (50) years. If the pipe material will deteriorate when subjected to corrosive conditions, the Engineer shall provide, for an acceptable corrosion resistant liner or provide calculation and data that demonstrated that the design and operational characteristics will provide for the minimum life cycle.

A. All gravity wastewater mains shall be in green in color. Four-inch (4") to fifteen-inch (15") pipe shall be PVC SDR 35 or 26 (ASTM D3034). Eighteen-inch (18") and larger pipe shall be PVC ASTM F679. PVC fittings may be either green or white in color.

B. All mains to be installed under existing roadway should be installed by bore unless otherwise approved by the Town Engineer. Rust resistant steel casing minimum one-fourth-inch (1/4") thick, or thicker if deemed necessary by the design engineer, shall be used with Raci patented casing

spacers, or approved equal. No wood skids will be permitted.

C. PVC pipe used for force mains shall be white in color. Twelve-inch (12") and smaller pipe shall be ASTM 2241 SDR 21. Pipes larger than twelve-inch (12") shall be C905 DR25.

D. Profile wall pipe shall not be permitted in the Town of Addison without written authorization by the Town Engineer. If allowed by the Town Engineer, twenty-four inches (24") and larger profile wall pipe shall conform to ASTM 794 and the Town of Addison specifications. "Helically wound" or "pipe stiffness series 10" profile wall pipe will not be allowed.

E. Cement stabilized sand shall have a minimum of ten percent (10%) cement per cubic yard of cement stabilized sand mixture, based on loose dry weight volume (at least 2.5 bags of cement per cubic yard of mixture). The cement stabilized sand bedding shall be a minimum of six inches (6") above and four inches (4") below the wastewater main or lateral. Brown coloring shall be added to the cement stabilized sand mixture for pressure rated wastewater main or lateral bedding.

IV. WASTEWATER MAIN SIZING:

A. Wastewater flow shall be computed in accordance with Tables 1a and 1b shown below, with the exceptions, as required by the Town Engineer.

Table 1a: Residential Design Flows

Land Use	Design Flow Rate
Single Family	• 100 gallons per person per day • 4.5 units per acre • 3 persons per unit
Apartment	• 100 gallons per person per day • 20 units per acre • 3 persons per unit
Patio Home	• 100 gallons per person per day • 5 units per acre • 3.5 persons per unit
Town Home	• 100 gallons per person per day • 10 units per acre • 3.5 persons per unit

Table 1b: Commercial Design Flows

Land Use	Design Flow Rate
Hospital	• 200 gallons per day per bed
Nursing Home	• 90 gallons per day per bed
Office/Commercial	• 0.1 gallons per sf per day
Restaurant	• 1 gallon per sf per day
School	• 15 gallons per student per day
Hotel/Motel	• 150 gallons per day per room
Medical Office	• 0.2 gallons per sf per day

Note: Infiltration shall be 650 gallons per acre per day (GPAD). For eight-inch (8"), ten-inch (10"), and twelve-inch (12"), the daily peak factor shall be 3, for fifteen-inch (15"), eighteen-inch (18"), and twenty-one-inch (21"), the daily peak factor shall be 2 and for twenty-four-inch (24") and larger, the daily peak factor shall be 1.

Calculation: Design flow rate*units*peak factor + infiltration rate*area = Peak Wet Weather Flow

Example Residential Calculation: 56 acres of single family residential
(100*4.5*3)*56 acres*3 + 650*56 = 263,200 gallons per day

Example Commercial Calculation: 10,000 sf retail store on 1 acre lot
0.1*10,000*3 + 650*1 = 3,650 gallons per day

B. The minimum acceptable "n" factor for use in design of wastewater mains shall be 0.013. Mains should be placed on such a grade that the velocity is not less than 2 fps or more than 10 fps. Minimum grades based on n = 0.013 shall be as follows:

TABLE 2: Minimum and Maximum Grades for Wastewater Mains

Size of Pipe (Inches)	Minimum Slope in (Percent)	Horizontal Curve (Percent)	Maximum Slope in (Percent)
8	0.33	0.35	8.40
10	0.25	0.27	6.23
12	0.20	0.22	4.88
15	0.15	0.17	3.62
18	0.11	0.13	2.83
21	0.09	0.10	2.30
24	0.08	0.09	1.93
27	0.06	0.07	1.65
30	0.055	0.065	1.43
33	0.05	0.06	1.26
36	0.045	0.055	1.12
39	0.04	0.05	1.01
>39	*	*	*

Note: For lines larger than thirty-nine inches (39") in diameter, the slope shall be determined using the following equation to maintain a minimum velocity of two feet per second (2 fps) and a maximum velocity of ten feet per second (10 fps).

$$V = (1.486/n)\cdot(R^{2/3})\cdot(S^{1/2})$$

Where:
V = Velocity of flow in conduit in feet per second.
n = Roughness coefficient of the conduit, dimensionless.
R = Hydraulic radius of the conduit in feet, which is the area of the flow divided by the wetted perimeter (R=A/P).
S = Slope of the hydraulic gradient in feet per foot.

V. WASTEWATER CONSTRUCTION:

A. Line and grade stakes for construction of all mains and laterals shall be furnished by the developer's Engineer or their designated representative. Property lines and corners must be properly staked to ensure correct alignment. The town will not be liable for improper alignment or delay of any kind caused by improper or inadequate surveys by the developer or by interference of other utilities.

B. All wastewater mains shall be tested for infiltration and exfiltration in accordance with standard specifications and as shown on the plans. Video camera inspections, low pressure air testing, vacuum testing of the manholes and mandrel testing are required on all sewer lines. In addition, all residential and commercial wastewater services shall have video camera inspections. All video camera inspections shall include an inclination study. All testing shall be completed, reviewed and approved by the Town of Addison prior to any final inspections or issue of certificate of occupancy.

VI. TRENCH REQUIREMENTS:

A. Minimum cover shall be four feet (4'). In general, the minimum depth for wastewater mains to serve given residential property with a four-inch (4") lateral shall be three feet (3') plus 2% times the length of the house lateral (the distance from the sewer to the center of the house). Thus, for a house one hundred thirty-five feet (135') from the sewer, the depth would be three feet (3') plus 2% x one hundred thirty-five feet (135') = 3.0 + 2.7 = five and seven-tenths feet (5.7'). The depth of the flow line of the sewer should then be at least five and seven-tenths feet (5.7') below the elevation of the ground at the point where the service enters the house. Profiles of the ground line twenty feet (20') past the building line will be required to verify that this criterion is met.

VII. MANHOLES:

The sizes and locations of manholes, wyes, bends, tap connections, etc., shall be approved by the Town Engineer. In general, manholes shall be placed at all four (4) way connections and three (3) way connections, changes in grade and direction, and the maximum spacing five hundred feet (500').

A. In order to provide access to wastewater mains for cleaning, manholes shall be located such that two hundred fifty feet (250') of rod can reach any point in the line. Manholes shall be located at the end of the line or on a line that may be extended in the future.

B. Manholes shall have a 400lbs traffic bearing frame and cover with a design strength of 4000 psi at twenty-eight (28) days.

C. Drop manholes shall be required when the inflow elevation is more than twenty-four inches (24") above the outflow elevation.

D. The diameter of a manhole constructed over the center of a wastewater main should vary with the size of the main. For eight-inch (8"), ten-inch (10"), and twelve-inch (12"), the manhole shall be four-foot (4') minimum diameter, for fifteen-inch (15"), eighteen-inch (18"), twenty-one-inch (21"), twenty-four-inch (24") and twenty-seven-inch (27") shall be five-foot (5') minimum diameter; thirty-inch (30") and thirty-six-inch (36") shall be six-foot (6') minimum diameter. Manholes deeper than fifteen feet (15') shall be a minimum of five-foot (5') diameter.

E. In Flood Plains, sealed manholes "Type S" shall be used to prevent the entrance of storm water. Coating in manhole where more than three manholes in sequence are to be bolted and gasketed, every third manhole shall be vented two feet (2') above the one hundred (100) year floodplain elevation or ten feet (10') above the adjacent ground line, whichever is higher. The Engineer shall provide the elevation of the one hundred (100) year flood. Sealed manholes shall also be used in all areas subject to carrying drainage flow or in drainage ways.

F. Where pipes enter a manhole there shall be a minimum of one-tenth of a foot (0.1') drop between inlet and outlet inverts. Where unequal size pipes enter a manhole, crown of pipes should be at the same elevation.

G. Manholes shall have inflow protection inserts, minimum thickness of one-eight inch (1/8"), made of HDPE meeting ASTM D 1248 Class A, Category 5, Type 111. Insert shall include a lift strap as manufactured by Knutson Manhole Inserts or approved other.

H. Construct manholes at each end of mains that are installed by other than open cut and at each end of aerial crossing lines.

I. Manhole vent stacks shall be placed on all manholes within 1000 feet of an outfall from a force main.

VIII. WASTEWATER MAIN CURVATURE:

B. No vertical curves shall be allowed.

C. Horizontal curvature may be by joint deflection or pipe flexure but not both. The Engineer must specify on the plans the method of deflection allowed and the allowable radius or joint deflection for each pipe size.

D. When pipe flexure is used, the minimum radius of curvature shall be equal to that recommended by the pipe manufacturer or 300*Do, where Do, is the average outside diameter of the pipe in inches,

which ever is greater. The Engineer shall note on the plans that, when using pipe flexure, all joints are to remain fully seated.

E. If joint deflection will be used to provide horizontal curvature, the allowable deflection shall be 80% of the Manufacturer's recommended maximum joint deflection, or eighty percent (80%) of the National Reference Standard ASTM criteria maximum recommended joint deflection or by TCEQ Criteria, whichever is less. In no case shall the radius be less than two hundred feet (200').

F. Horizontal curves for wastewater mains running parallel with public right-of-ways shall match change in street direction as near as possible. Horizontal curves will not be allowed across residential single family and duplex lots, without prior approval from the Town Engineer.

G. Manholes on curved wastewater mains shall be located at the P.C. or P.T. of the curve and a maximum spacing of four hundred feet (400') along the curve.

IX. LATERALS:

The sizes and locations of laterals shall be designated as follows unless otherwise directed by the Town Engineer:

A. In general, for single-family dwellings, the lateral size shall be a four-inch (4") minimum. House laterals shall be installed ten feet (10') downstream from the center of the lot and shall have a ten-foot (10') separation from the water service. All residential sewer services shall be extended to a point ten feet (10') from the back of the property line at a maximum depth of five feet (5'). The service shall then be extended at a forty-five degree (45°) angle to four feet (4') above the finished grade and capped.

B. Multiple units, apartments, local retail and commercial – six-inch (6") minimum.

C. Manufacturing and industrial - eight-inch (8") minimum or larger as required.

D. Manholes will be required on six-inch (6") and larger laterals where they connect to the main line.

E. Manholes will be required where wastewater laterals intersect wastewater mains that are deeper than twelve feet (12'). Deep cut or drop connections shall not be permitted.

F. A double cleanout shall be installed on the lateral at the right-of-way or easement line. Fittings are not permitted on laterals between the wye and the double cleanout.

G. A minimum of one (1) lateral per building shall be required. Also, a minimum of one (1) lateral per residential lot shall be required. Shared laterals are not permitted unless otherwise approved by the Public Works Department.

H. All mains installed in future developed areas shall install laterals; the use of boots will not be permitted.

I. All sewer laterals crossing water mains shall conform to the requirements of the Texas Commission on Environmental Quality (TCEQ) Chapter 217 (Design Criteria for Domestic Wastewater Systems), latest revision.

X. SANITARY SEWER EASEMENTS:

The following minimum width exclusive wastewater easements are required when facilities are not

located within public rights-of-way or easements:

A. Wastewater mains are to be located within the center of a fifteen-foot (15') wastewater easement.

B. In residential developments, wastewater mains shall not cross residential lots unless specifically approved by the Town Engineer, in which case the easement shall be located within a single lot.

C. For wastewater mains deeper than ten feet (10'), the easement width shall be equal to 1.5 times the depth of the line rounded up to the nearest five feet (5'). Thus, for a sanitary sewer line twelve feet (12') deep, the sanitary sewer easement would be 1.5 x twelve feet (12') = 1.5 x 12 = eighteen feet (18'), rounded up to the nearest five feet (5') = twenty feet (20').

Kimley-Horn and Associates, Inc.
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No.	Revision	Date
1	ADDED TOWN GENERAL NOTES	8/26/11

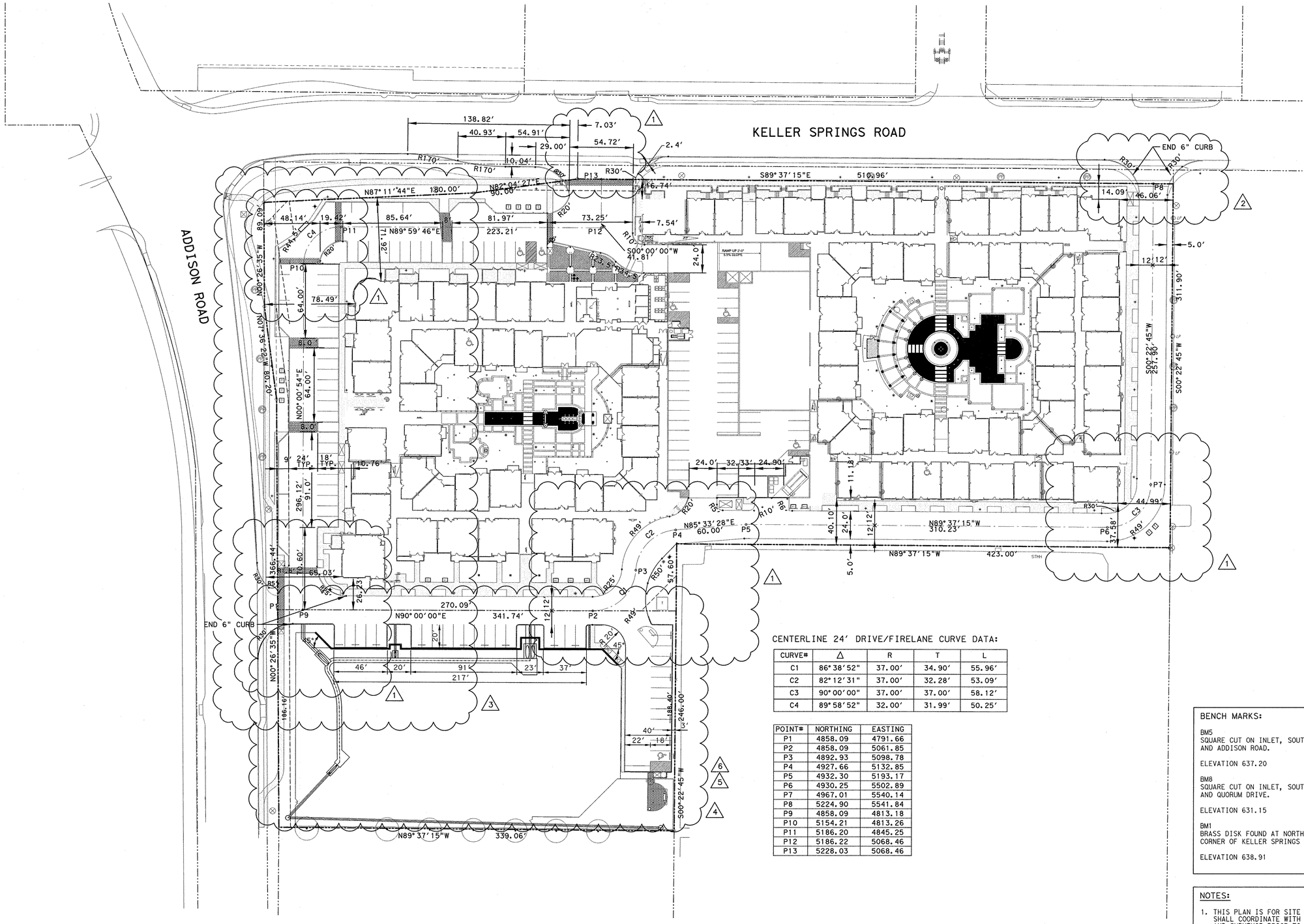
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

TOWN OF ADDISON WATER AND WASTEWATER REQUIREMENTS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C2b



CENTERLINE 24' DRIVE/FIRELANE CURVE DATA:

CURVE#	Δ	R	T	L
C1	86° 38' 52"	37.00'	34.90'	55.96'
C2	82° 12' 31"	37.00'	32.28'	53.09'
C3	90° 00' 00"	37.00'	37.00'	58.12'
C4	89° 58' 52"	32.00'	31.99'	50.25'

POINT#	NORTHING	EASTING
P1	4858.09	4791.66
P2	4858.09	5061.85
P3	4892.93	5098.78
P4	4927.66	5132.85
P5	4932.30	5193.17
P6	4930.25	5502.89
P7	4967.01	5540.14
P8	5224.90	5541.84
P9	4858.09	4813.18
P10	5154.21	4813.26
P11	5186.20	4845.25
P12	5186.22	5068.46
P13	5228.03	5068.46

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

NOTES:

1. THIS PLAN IS FOR SITE PAVING CONTROL ONLY. CONTRACTOR SHALL COORDINATE WITH THE OWNER, ENGINEER, ARCHITECT AND SURVEYOR PRIOR TO STAKING BUILDING CORNERS
2. ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS NOTED OTHERWISE.
3. ALL PARKING RADII DIMENSIONS TO BE 2' MINIMUM UNLESS OTHERWISE NOTED.

No.	Revision	Date
1	REVISED FIRE LANE FOR WB-50	9/14/11
2	REVISED DRIVEWAY	10/27/11
3	REVISED PARKING	2/6/12
4	ADDED PARKING	2/28/13
5	REVISED PARKING	4/18/13
6	REVISED PARKING	5/29/13

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1600
Dallas, Texas 75251
Phone No. (972) 770-1300 Fax No. (972) 770-1330

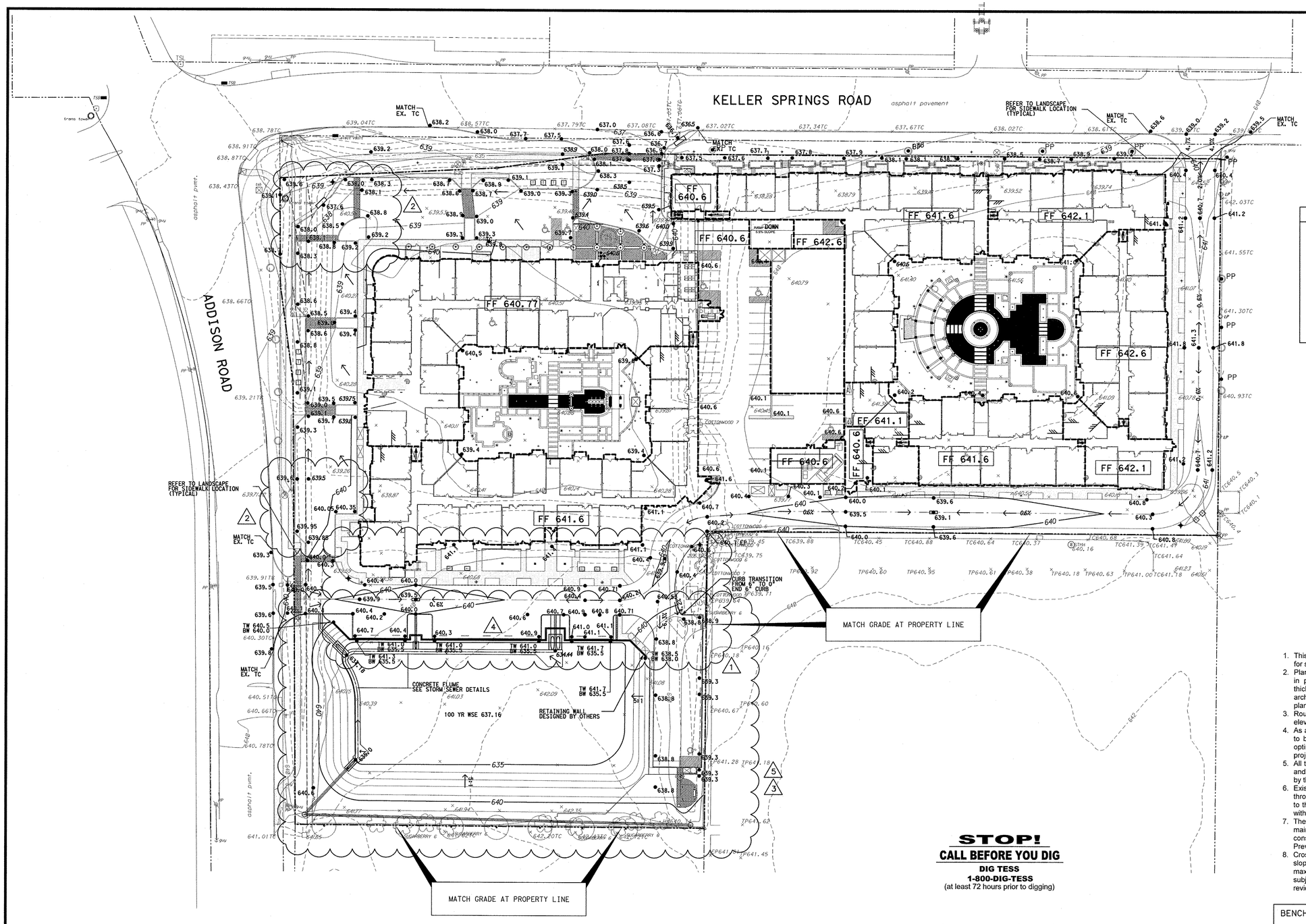
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
5-29-2013

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

DIMENSION CONTROL PLAN

DATE: FEBRUARY 28, 2013
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C3



LEGEND

634	EX. MINOR CONTOUR
635	EX. MAJOR CONTOUR
	PROP. CONTOUR
• 559.5	PROP. SPOT ELEVATION
557.19	EXIST. SPOT ELEVATION
F.F.	FINISH FLOOR ELEVATION
	SURFACE FLOW DIRECTION

MODIFIED PARKING 5/29/13

STOP!
CALL BEFORE YOU DIG
DIG TESS
1-800-DIG-TESS
(at least 72 hours prior to digging)

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

NOTE:
ALL GRADES ARE TOP OF PAVEMENT UNLESS OTHERWISE NOTED

Grading Notes (Multi-family)

1. This plan is for site rough grading only. See architect and structural plans for slab elevations to be used for foundation construction.
2. Plan elevations are to finish building slab, top of pavement, or finish grade in planting areas. Adjustment for slab, pavement, and planting bed thickness must be made for the purposes of earthwork. Refer to the architect and landscape architect plans for elements not detailed in this plan set.
3. Rough grading shall be accomplished to within +/- 0.10 feet of plan elevation after adjustment for finish thickness.
4. As a minimum requirement, all fill shall be placed in 6-inch lifts compacted to between 95% of standard proctor density between -3% and +3% of optimum moisture content. Refer to the geo-tech report for complete project specifications.
5. All trees, stumps, brush, grasses and surface organics are to be removed and properly disposed of offsite. Tree removal permits shall be obtained by the owner or the contractor prior to commencement of grading.
6. Existing utility poles will be removed or relocated by the utility companies through coordination by the owner and contractor. Contractor shall bring to the owner's attention any facilities that are, or appear to be, in conflict with construction activities.
7. The contractor shall install erosion control measures per the plans and maintain streets free of mud, dirt and debris for the duration of the construction activities. See Erosion Control and Storm Water Pollution Prevention Plan for specific details and requirements.
8. Cross slopes on sidewalks shall not exceed a 2% grade and longitudinal slopes shall not exceed a 5% grade. Slopes in excess of the above noted maximums will be in violation of accessibility requirements and will be subject to removal and replacement at the direction of the accessibility reviewer and at the expense of the contractor.

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, Texas 75251
Phone No. (972) 770-1300

No.	Revision	Date
1	REVISED FIRE LANE GRADES	11/17/11
2	REVISED PARKING GRADING	2/6/12
3	ADDED PARKING	2/28/13
4	ADDED PARKING	4/18/13

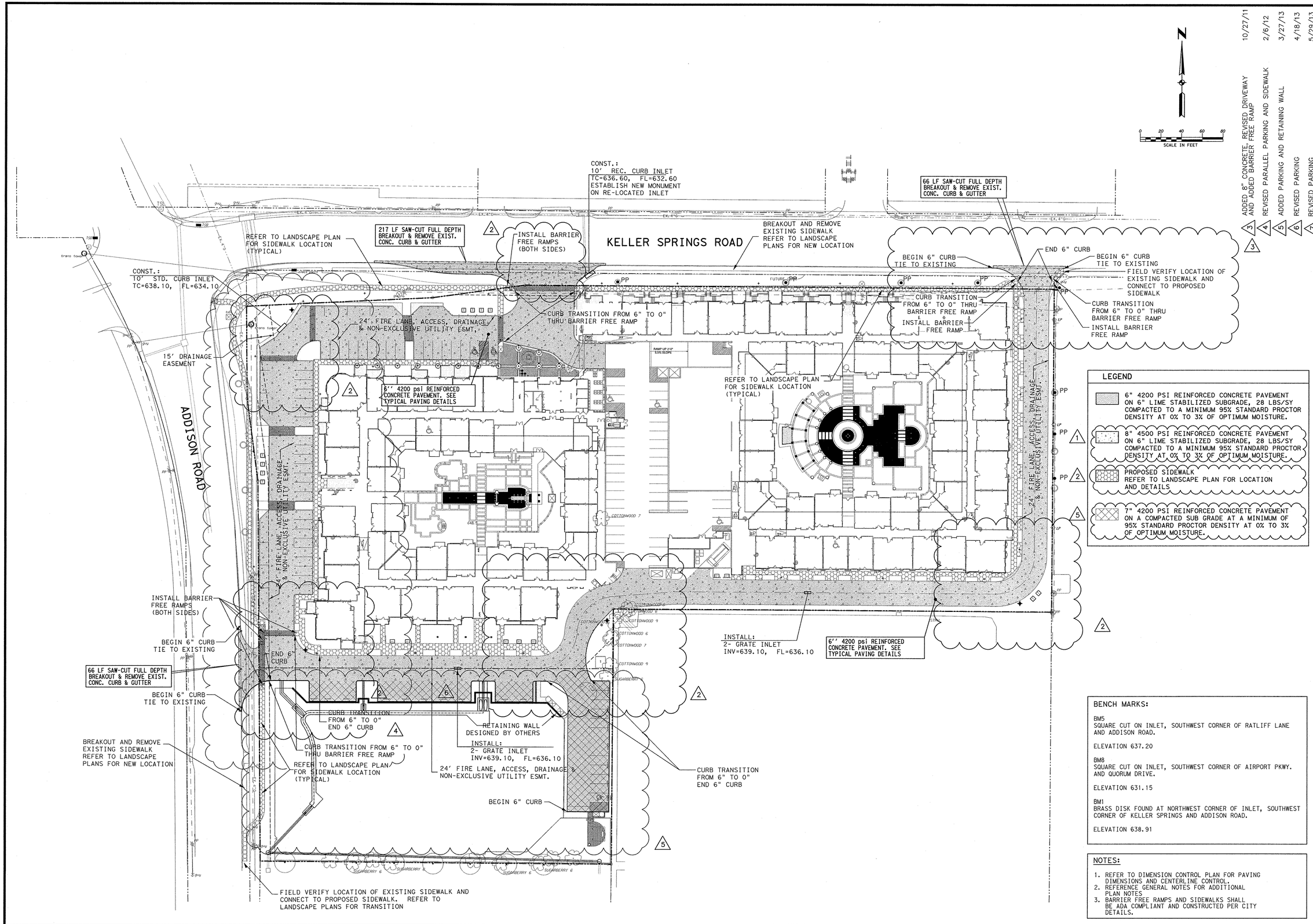
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
4-29-2013

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

GRADING PLAN

DATE: FEBRUARY 28, 2013
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C4



No.	Revision	Date
1	ADDED 6" CONCRETE, REVISED DRIVEWAY AND ADDED BARRIER FREE RAMP	10/27/11
2	REVISED PARALLEL PARKING AND SIDEWALK	2/6/12
3	ADDED PARKING AND RETAINING WALL	3/27/13
4	REVISED PARKING	4/18/13
5	REVISED PARKING	5/29/13

LEGEND

- 6" 4200 PSI REINFORCED CONCRETE PAVEMENT ON 6" LIME STABILIZED SUBGRADE, 28 LBS/SY COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY AT 0% TO 3% OF OPTIMUM MOISTURE.
- 8" 4500 PSI REINFORCED CONCRETE PAVEMENT ON 6" LIME STABILIZED SUBGRADE, 28 LBS/SY COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY AT 0% TO 3% OF OPTIMUM MOISTURE.
- PROPOSED SIDEWALK REFER TO LANDSCAPE PLAN FOR LOCATION AND DETAILS
- 7" 4200 PSI REINFORCED CONCRETE PAVEMENT ON A COMPACTED SUB GRADE AT A MINIMUM OF 95% STANDARD PROCTOR DENSITY AT 0% TO 3% OF OPTIMUM MOISTURE.

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

NOTES:

1. REFER TO DIMENSION CONTROL PLAN FOR PAVING DIMENSIONS AND CENTERLINE CONTROL.
2. REFERENCE GENERAL NOTES FOR ADDITIONAL PLAN NOTES
3. BARRIER FREE RAMPS AND SIDEWALKS SHALL BE ADA COMPLIANT AND CONSTRUCTED PER CITY DETAILS.

Kimley-Horn and Associates, Inc.
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Fax No. 972-770-1675

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL
ENGINEER
5-29-2013

Keller Springs Lofts

Loft Apartments in Addison

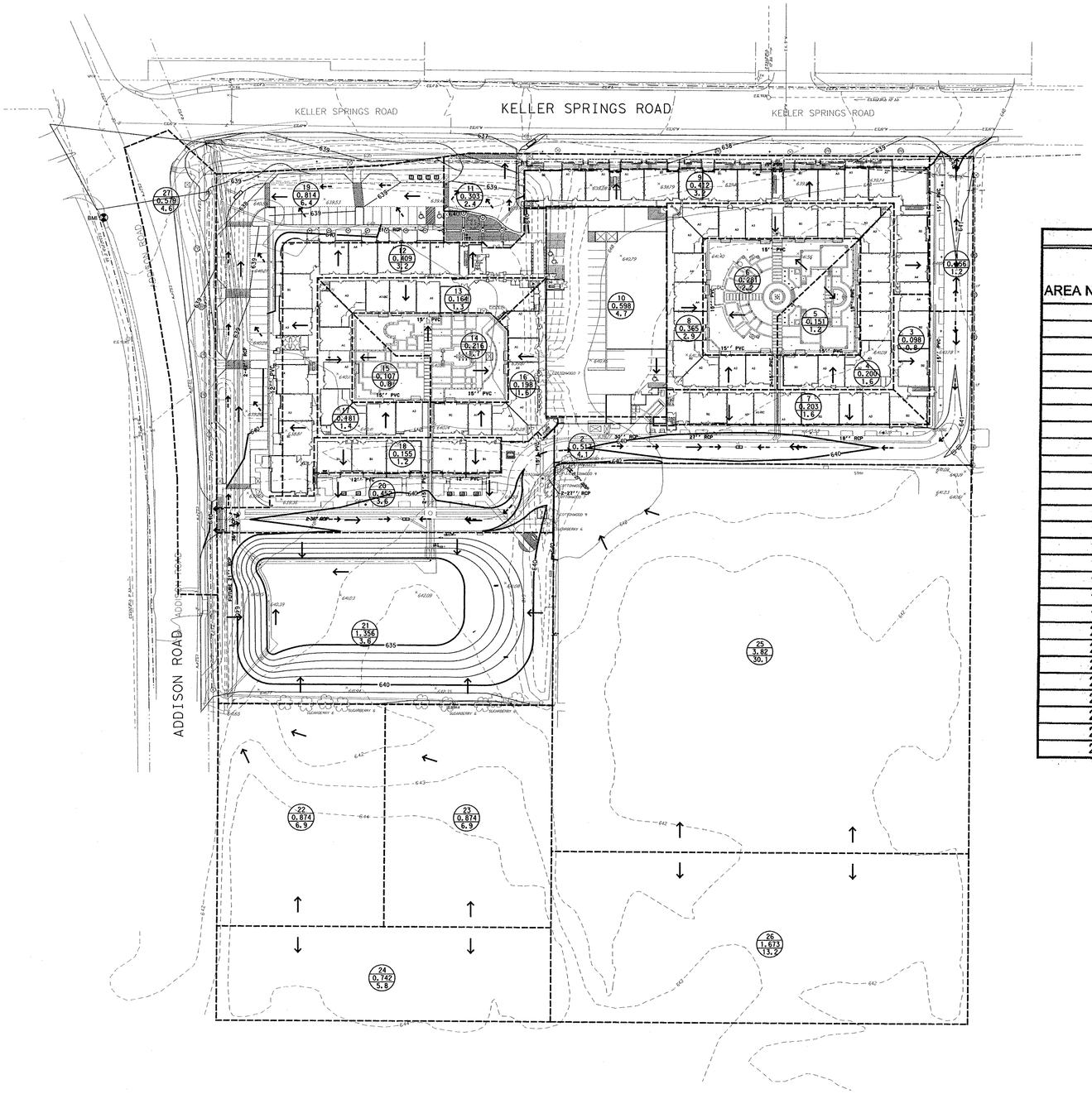
Town of Addison, Texas

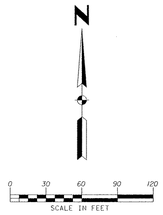
PAVING PLAN

DATE: FEBRUARY 28, 2013
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET

C4a





LEGEND

EXISTING CONTOUR ---500---

DRAINAGE DIVIDE LINE --------

SURFACE FLOW DIRECTION ⟶

DRAINAGE AREA — AREA No. X, AREA (AC) XX.XX, Q100 XX.X

Runoff Calculations					
AREA NO.	AREA "A" (ACRES)	Tc (MIN)	INTENSITY "I_{100}" (IN/HR)	RUNOFF COEFF. "C"	STORM RUNOFF "Q_{100}"
1	0.158	10	8.74	0.9	1.2
2	0.517	10	8.74	0.9	4.1
3	0.098	10	8.74	0.9	0.8
4	0.200	10	8.74	0.9	1.6
5	0.151	10	8.74	0.9	1.2
6	0.281	10	8.74	0.9	2.2
7	0.203	10	8.74	0.9	1.6
8	0.365	10	8.74	0.9	2.9
9	0.412	10	8.74	0.9	3.2
10	0.598	10	8.74	0.9	4.7
11	0.303	10	8.74	0.9	2.4
12	0.409	10	8.74	0.9	3.2
13	0.164	10	8.74	0.9	1.3
14	0.216	10	8.74	0.9	1.7
15	0.107	10	8.74	0.9	0.8
16	0.198	10	8.74	0.9	1.6
17	0.181	10	8.74	0.9	1.4
18	0.155	10	8.74	0.9	1.2
19	0.814	10	8.74	0.9	6.4
20	0.452	10	8.74	0.9	3.6
21	1.356	10	8.74	0.3	3.6
22	0.874	10	8.74	0.9	6.9
23	0.874	10	8.74	0.9	6.9
24	0.742	10	8.74	0.9	5.8
25	3.823	10	8.74	0.9	30.1
26	1.673	10	8.74	0.9	13.2
27	0.579	10	8.74	0.9	4.6

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1900
Dallas, TX 75251
972-770-1300

No.	Revision	Date

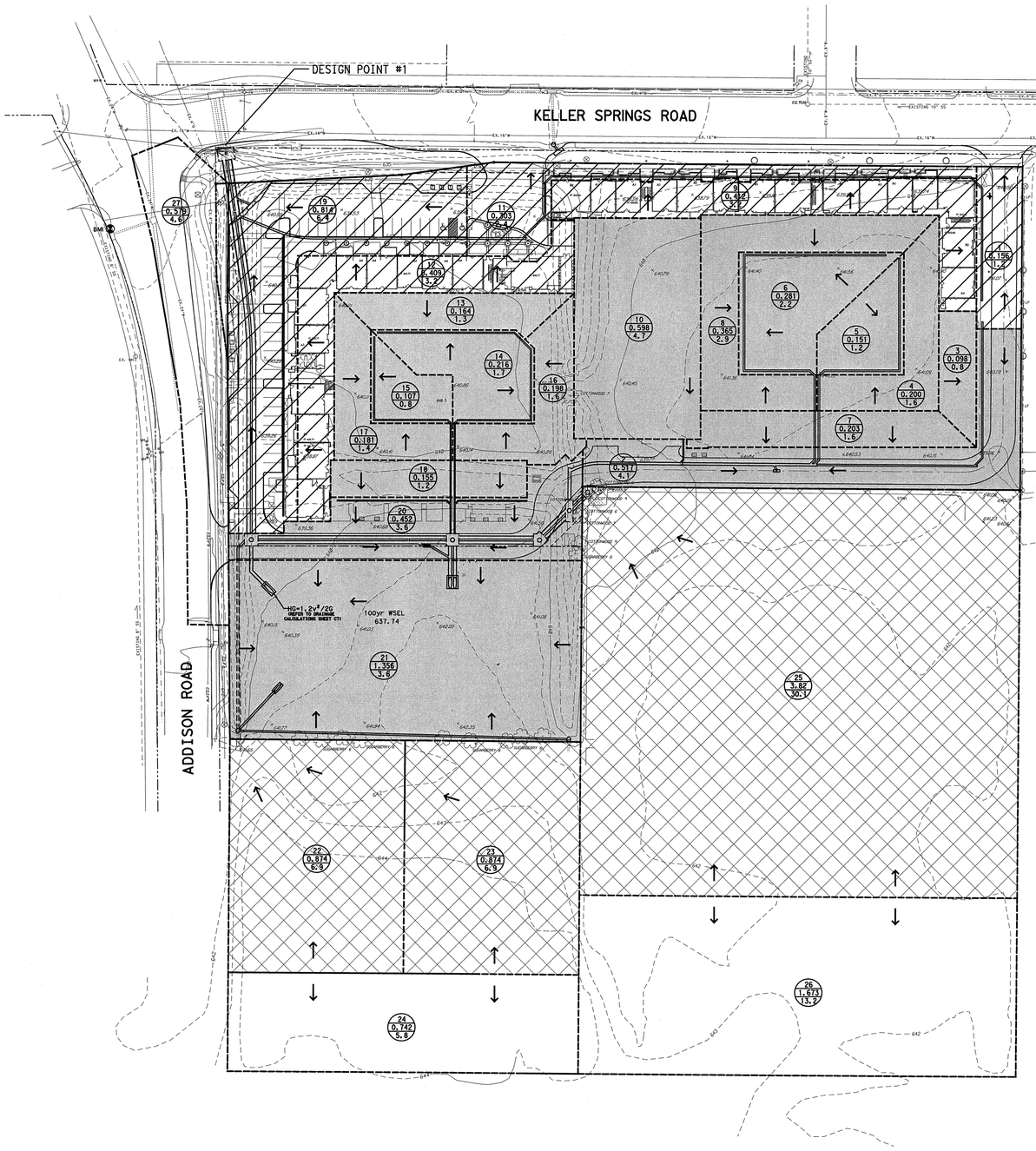
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-2011

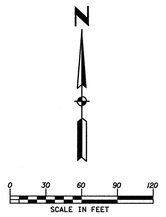
Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

DRAINAGE AREA MAP

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C5





LEGEND

EXISTING CONTOUR ---500---

DRAINAGE DIVIDE LINE --------

SURFACE FLOW DIRECTION →

DRAINAGE AREA (AREA No. X / AREA (AC) XX.XX / Q100 XX.X)

AREAS FLOWING TO POND AND BEING DETAINED

AREAS FLOWING TO POND AND NOT BEING DETAINED

AREAS BYPASSING POND AND BEING DETAINED FOR

REQUIRED STORAGE

MODIFIED RATIONAL METHOD (DETENTION VOLUME CALCULATIONS)
FOR A FLOW-THROUGH SYSTEM

INPUT: Keller Springs Lofts

Area (Flowing to pond)	10.85 acre
Tc	10 min
Runoff Coefficient	0.9
Peak Inflow	86.0 cfs
Max. Outflow	37.7 cfs

OUTPUT:

Interval	Duration (min)	Intensity (in/hr)	Qin (cfs)	Volume (in) (cf)	Volume (out) (cf)	Volume (storage) (cf)
1	10	8.7	85.3	51,208	22,620	28,588
2	15	7.5	73.4	66,090	28,275	37,815
3	20	6.8	66.4	79,680	33,930	45,750
4	30	5.8	56.1	101,068	45,240	55,828
5	40	5.0	48.8	117,180	56,550	60,630
6	50	4.4	43.0	128,898	67,860	61,038
7	60	3.9	38.2	137,452	79,170	58,282
8	70	3.6	35.2	147,647	90,480	57,167
9	80	3.3	32.2	154,678	101,790	52,888

RAINFALL INTENSITIES (I):	
Storm Event (yr)	100
Duration (min)	Intensity (in/hr)
10	8.7
15	7.5
20	6.8
30	5.8
40	5.0
50	4.4
60	3.9
70	3.6
80	3.3

Existing Discharge (Design Point #1)

Total Area Flowing to Existing Culverts = 12.91 ac
Existing Weighted 'C' = 0.56
Existing Intensity @ 15 min = 7.5 in/hr
Existing Discharge = 12.91 ac * 0.56 * 7.5 in/hr = 54.2 cfs

Bypass Discharge

Bypass Area = 2.10 ac
Proposed 'C' = 0.90
Proposed Intensity @ 10 min = 8.74 in/hr
Bypass Discharge = 2.10 ac * 0.90 * 8.74 in/hr = 16.5 cfs

Maximum Outflow

Existing Discharge - Bypass Discharge = Maximum Outflow
54.2 cfs - 16.5 cfs = **37.7 cfs**

PROVIDED STORAGE

Detention Pond Volume by Elevation

Elevation	Surface Area ft²	Surface Area Ac	Incremental Volume ft³	Incremental Volume Ac-Ft	Accumulated Volume ft³	Accumulated Volume Ac-Ft
634.18	0	0.00			0.00	0.00
			6096	0.14		
635	22302	0.51			6096	0.14
			23981	0.55		
636	25700	0.59			30077	0.69
			26739	0.61		
637	27791	0.64			56815	1.30
			2780	0.06		
637.1	27810	0.64			59596	1.37
			1393	0.03		
637.15	27910	0.64			60989	1.40
			559	0.01		
637.17	27947	0.64			61547	1.41
			839	0.02		
637.2	27985	0.64			61547	1.41
			2822	0.06		
637.3	28456	0.65			64369	1.48
			20612	0.47		
638	30448	0.70			84982	1.95
			32346	0.74		
639	34281	0.79			117327	2.69

1

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

Kimley-Horn and Associates, Inc.
8700 Tnal Crossing Drive, Suite 1800
Dallas, Texas 75231-5805 972-770-1300
TBPE No. F-928

No.	Revision	Date
1	REVISED POND CALCULATIONS	4/18/13

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
4-18-2013

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

DETENTION POND CALCULATIONS

DATE: FEBRUARY 28, 2013
DESIGN: KHA
DRAWN: KHA
CHECKED:KHA
KHA NO.:064362003
CITY NO.:

SHEET
C6

Storm Sewer Calculations

Line or Lateral Name	Runoff Collection Point (Inlet or Manhole)		Distance Between Collection Points	Incremental Drainage Area				Accumulated "CA"	Time at Upstream Station (minutes)	Design Storm Frequency (years)	Intensity "I" (in/hr)	Storm Water Runoff "Q" (cfs)	Slope of Hydraulic Gradient "S" (ft/ft)	Selected Storm Water Size	Velocity in Sewer Between Connection Points "V" (fps)	Velocity Head Loss at Upstream Station	Inlet, Manhole, Bends, Lateral, or Junction Box Losses	Head Loss Coeff. Kj	Velocity Head Loss at Downstream Station	Flow Time in Sewer (minutes)	Time at Downstream Station (minutes)	Hydraulic Grade Line Elevation Upstream (elev)	Hydraulic Grade Line Elevation Downstream (elev)	Remarks
	Upstream Station	Downstream Station		Area No.	Drainage Area "A" (acres)	Runoff Coeff. "C"	Incremental "CA"																	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		19	20	21	22	23
A																								
B	38.00	0.00	38	2,3,4,5,6,7,8,10	2.413	0.9	2.1717	2.1717	10	100	8.74	18.981	0.0008	36	2.69	0.112	Lateral	0.6	0.13	0.24	10.24	638.92	638.89	
B																								
pvc	392.50	237.50	155	3,(1/2)7	0.1995	0.9	0.17955	0.17955	10	100	8.74	1.569	0.0002	18	0.89	0.012	Lateral	0.6	0.01				639.75	
pvc	237.50	198.50	39	4,5,6,(1/2)7,8	1.0985	0.9	0.98865	1.1682		100	8.74	10.210	0.0011	27	2.57	0.102	Lateral	0.6	0.10	2.91	12.91	639.74	639.71	
Lat B-1	198.50	107.50	91	2	0.517	0.9	0.4653	1.6335		100	8.74	14.277	0.0021	27	3.59	0.200	Lateral	0.6	0.14	0.25	13.16	639.61	639.57	
pvc	107.50	0.00	107.5	10	0.598	0.9	0.5382	2.1717		100	8.74	18.981	0.0021	30	3.87	0.232	Lateral	0.6	0.11	0.42	13.58	639.43	639.24	
																			-0.03	0.46	14.05	639.12	638.89	
B-1																								
	6.00	0.00	6	2	0.517	0.9	0.4653	0.4653	10	100	8.74	4.067	0.0015	18	2.30	0.082	Inlet	1.5	0.12				639.71	
																			0.15	0.04	10.04	639.59	639.58	
C																								
pvc	281.66	50.59	231.07	9,(1/2)12	0.6165	0.9	0.55485	0.55485	10	100	8.74	4.849	0.0009	21	2.02	0.063	Lateral	0.6	0.04				637.17	
pvc	50.59	0.00	50.59	(1/2)12	0.2045	0.9	0.18405	0.7389		100	8.74	6.458	0.0017	21	2.68	0.112	Lateral	0.6	0.07	1.91	11.91	637.13	636.91	
																			0.01	0.31	12.22	636.84	636.75	
D																								
	344.34	319.42	24.92	25	3.823	0.9	3.4407	3.4407	10	100	8.74	30.072	0.0024	2-27	3.78	0.222	Box	0.5	0.11				639.01	
Line A	319.42	278.92	40.5	2,3,4,5,6,7,8,10	2.413	0.9	2.1717	5.6124		100	8.74	49.052	0.0014	2-36	3.47	0.187	Box	0.5	0.08	0.11	10.11	638.89	638.84	
	278.92	194.73	84.19			0.9	0	5.6124		100	8.74	49.052	0.0014	2-36	3.47	0.187	Bend	0.35	0.12	0.19	10.30	638.76	638.70	
																			0.16	0.40	10.71	638.58	638.47	
E																								
	428.00	397.69	30.31	Detention Pond Out	4.792779	0.9	4.3135011	4.313501144	10	100	8.74	37.700	0.0032	36	5.33	0.442	Headwall	1.2	0.53				637.72	
	397.69	367.43	30.26		0	0.9	0	4.313501144		100	8.74	37.700	0.0032	36	5.33	0.442	Bend	0.35	0.29	0.09	10.09	637.19	637.09	
	367.43	53.02	314.41		0	0.9	0	4.313501144		100	8.74	37.700	0.0004	2-42	1.96	0.060	Box	0.5	-0.19	0.09	10.19	636.80	636.70	
Line C	53.02	36.24	16.78	9,12	0.821	0.9	0.7389	5.052401144		100	8.74	44.158	0.0005	2-42	2.29	0.082	Lateral	0.6	0.05	2.67	12.86	636.90	636.79	
Lat E1	36.24	0.00	36.2393	19	0.814	0.9	0.7326	5.785001144		100	8.74	50.561	0.0006	2-42	2.63	0.107	Lateral	0.6	0.06	0.12	12.99	636.74	636.73	
															8.01	0.996	Box	0.5	0.44	0.23	10.42	636.67	636.65	
E-1																								
	18.00	0.00	18	19	0.814	0.9	0.7326	0.7326	10	100	8.74	6.403	0.0009	18	1.81	0.051	Inlet	1.5	0.08				636.84	
																			0.08	0.17	10.17	636.77	636.75	
F																								
																			0.13				638.44	
Line D	47.00	28.50	18.5	2,3,4,5,6,7,8,10,13, 14,15,16,17,18,25	7.258	0.9	6.5322	6.5322	10	100	8.74	57.091	0.0018	2-36	4.04	0.253	Box	0.5	0.13	0.08	10.08	638.31	638.28	
Lat F1	28.50	0.00	28.5	20	0.452	0.9	0.4068	6.939		100	8.74	60.647	0.0021	2-36	4.29	0.286	Lateral	0.6	0.34	0.11	10.19	638.14	638.08	
															0.00	0.000	Headwall	1.2						
F-1																								
	25.00	0.00	25	20	0.452	0.9	0.4068	0.4068	10	100	8.74	3.555	0.0003	18	1.01	0.016	Inlet	1.5	0.02				638.45	
																			0.28	0.41	10.41	638.43	638.42	
G																								
Line H	62.00	0.00	62	22,23	1.748	0.9	1.5732	1.5732	10	100	8.74	13.750	0.0075	21	5.72	0.507	Manhole	1.25	0.63				639.45	
															0.00	0.000	Headwall	1.2	0.61	0.18	10.18	638.82	638.35	
H																								
	320.05	0.00	320.05	23	0.874	0.9	0.7866	0.7866	10	100	8.74	6.875	0.0043	18	3.89	0.235	Manhole	1.25	0.29				640.69	
																			0.21	1.37	11.37	640.40	639.03	

Future Storm Sewer Calculations

A (Alt)*																								
B	38.00	0.00	38	2,3,4,5,6,7,8,10	2.413	0.9	2.1717	2.1717	10	100	8.74	18.981	0.0008	36	2.69	0.112	Lateral	0.6	0.13	0.24	10.24	637.95	637.92	
B (Alt)*																								
pvc	392.50	237.50	155	3,(1/2)7	0.1995	0.9	0.17955	0.17955	10	100	8.74	1.569	0.0002	18	0.89	0.012	Lateral	0.6	0.01				638.77	
pvc	237.50	198.50	39	4,5,6,(1/2)7,8	1.0985	0.9	0.98865	1.1682		100	8.74	10.210	0.0011	27	2.57	0.102	Lateral	0.6	0.10	2.91	12.91	638.77	638.73	
Lat B1	198.50	107.50	91	2	0.517	0.9	0.4653	1.6335		100	8.74	14.277	0.0021	27	3.59	0.200	Lateral	0.6	0.14	0.25	13.16	638.64	638.59	
pvc	107.50	0.00	107.5	10	0.598	0.9	0.5382	2.1717		100	8.74	18.981	0.0021	30	3.87	0.232	Lateral	0.6	0.11	0.42	13.58	638.46	638.26	
																			-0.03	0.46	14.05	638.15	637.92	
C (Alt)*																								
pvc	281.66	50.59	231.07	9,(1/2)12	0.6165	0.9	0.55485	0.55485	10	100	8.74	4.849	0.0009	21	2.02	0.063	Lateral	0.6	0.07	1.91	11.91	636.58	636.36	
pvc	50.59	0.00	50.59	(1/2)12	0.2045	0.9	0.18405	0.7389		100	8.74	6.458	0.0017	21	2.68	0.112	Lateral	0.6	0.28	0.31	12.22	636.28	636.20	
D (Alt)*																								
	344.34	319.42	24.92	25	3.823	0.9	3.4407	3.4407	10	100	8.74	30.072	0.0009	2-27	3.78	0.222	Box	0.5	0.11				638.00	
Line A*	319.42	278.92	40.5	2,3,4,5,6,7,8,10	2.413	0.9	2.1717	5.6124		100	8.74	49.052	0.0014	2-36	3.47	0.187	Box	0.5	0.08	0.11	10.11	637.88	637.86	
	278.92	194.73	84.19		0	0.9	0	5.6124		100	8.74	49.052	0.0014	2-36	3.47	0.187	Box	0.5	0.12	0.19	10.30	637.79	637.73	
	194.73	156.00	38.73	13,14,15,16,17,18,	1.021	0.9	0.9189	6.5313		100	8.74	57.084	0.0018	2-36	4.04	0.253	Box	0.5	0.16	0.40	10.71	637.61	637.49	
Lat F-1*	156.00	0.00	156	20	0.452	0.9	0.4068	6.9381		100	8.74	60.639	0.0021	2-36	4.29	0.286	Lateral	0.6	0.13	0.16	10.87	637.34	637.26	
																			0.16	0.61	11.47	637.13	636.81	
E (Alt)*																								
Line D*	367.43	53.02	314.41	2,3,4,5,6,7,8,10,13, 14,15,16,17,18,20,21,2 2,23,25	10.815	0.9	9.7335	9.7335		100	8.74	85.071	0.0018	2-42	4.42	0.304	Box	0.5	0.17	1.19	1.19	636.65	636.09	
Line C*	53.02	36.24	16.78	9,12	0.821	0.9	0.7389	10.4724		100	8.74	91.529	0.0021	2-42	4.76	0.351	Lateral	0.6	0.19	0.06	1.24	635.92	635.88	
Lat E1*	36.24	0.00	36.2393	19	0.814	0.9	0.7326	11.205		100	8.74	97.932	0.0024	2-42	5.09	0.402	Lateral	0.6	1.19	0.12	0.12	635.69	635.60	
															9.48	1.396	Box	0.5						
D-1																								
	12.00	0.00	12	20	0.452	0.9	0.4068	0.4068	10	100	8.74	3.555	0.0003	18	1.01	0.016	Inlet	1.5	0.28	0.20	10.20	637.41	637.41	

* Alternative flow when/if detention pond is abandoned

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1900
Dallas, TX 75251-1518 972-770-1300
TBPE No. F-928

No.	Revision	Date

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-11

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

DRAINAGE CALCULATIONS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C7

CAUTION!!
EXIST. GAS MAIN IN AREA
CONTACT TEXAS ONE CALL
1-800-245-4545
48 HOURS PRIOR TO
CONSTRUCTION

REMOVE & DISPOSE EXIST. INLET
CONST. STD. 4' DIA. MH. AT THE END
OF EXIST. 18" RCP.
STA 0+00 BEGIN 18" RCP
TOP= 637.05, FL= 633.03

STA 0+00 LINE 'E'
REMOVE & DISPOSE EXIST. HDWL.
CONST. JUNCTION STRUCTURE
CONN. TO EXIST. 3-36" RCP
(SEE SHT. C19 FOR DETAILS)

STA 0+06.64
END 18" RCP AT FACE INLET
CONST. STD. 10' RECESS INLET
TOP=636.60, FL= 632.60
HG=634.56

STA 0+18 LAT 'E-1'
CONST. STD 10' INLET
TOP=638.10, FL=634.10
HG=635.02

KELLER SPRINGS ROAD asphalt pavement

APPROX. LOCATION EX. 4" GAS LINE

EXISTING 10" SS

10" SS SERVICE

END 6" CURB

STA 0+36.24 LINE 'E'
STA 0+00 LAT 'E-1'
60° FACTORY WYE

STA 0+50 LINE 'E'
INSTALL 21" RCP
EQUALIZER PIPE

STA 0+53.02 LINE 'E'
STA 0+00 LINE 'C'
60° FACTORY WYE

LINE 'E'

STA 1+22.57 PC

CL. LINE 'E'
CURVE DATA:
Δ=8°33'32"
R=500.00'
T=37.41'
L=74.69'

STA 1+97.26 PT

REMOVE EXIST.
CULVERT

ADDISON ROAD

CL. LINE 'C'
CURVE DATA:
Δ=21°26'29"
R=100.00'
T=18.93'
L=37.42'

LINE 'C'

STA 2+84.66 LINE 'C'
45° FACTORY WYE

STA 0+50.59 LINE 'C'
12" PVC CONNECTION

STA 2+84.66 LINE 'C'
END & PLUG 21" RCP

REMOVE EXIST.
CULVERT

CL. LINE 'B'
CURVE DATA:
Δ=29°56'53"
R=60.50'
T=16.18'
L=31.62'

STA 0+41 LINE 'A'
END & PLUG 36" RCP

STA 0+31.62
LINE 'B' PT.

LINE 'B'

STA 0+00 LINE 'D'=
STA 3+67.43 LINE 'E'
CONST. JUNCTION STRUCTURE
(SEE SHT. C17 FOR DETAILS)

STA 1+87.29 LAT 'E-2'
CONN. TO SIDE OF JUNCTION STRUCTURE
FL.18"= 634.68

STA 1+76.29 LAT 'E-2'
INST. 18" 45° HORZ. BEND

END 6" CURB

STA 1+64 LAT 'E-2'
END & PLUG 18" RCP
FL.18"= 634.96

STA 3+97.69 LINE 'E'
INST. 30" 45° HORZ. BEND

STA 4+28 LINE 'E'
CONST. SLOPED HDWL.
SEE THIS SHEET FOR DETAIL

STA 0+20 LAT 'D-2'
2 INST TWO GRATE INLET
INV=639.9, FL=636.9

STA 0+49.50 LINE 'B'
END 30" RCP,
BEGIN 27" RCP

STA 0+45.50 LINE 'B'
45° FACTORY WYE

STA 3+44.34 LINE 'D'
REMOVE & DISPOSE EXIST. HDWL.
EXTEND EXIST 2-27" RCP 3'
CONST. JUNCTION STRUCTURE
CONN. TO EXIST. 2-27" RCP
(SEE SHT. C20 FOR DETAILS)

STA 3+19.42 LINE 'D'=
STA 0+00 LINE 'A'
CONST. JUNCTION STRUCTURE
(SEE SHT. C18 FOR DETAILS)

STA 2+87 LINE 'D'
STA 0+00 LAT 'D-2'
45° FACTORY WYE
FL LINE 'D'=634.86
FL LAT 'D-2'=635.61

STA 2+78.92 LINE 'D'
CONST. JUNCTION STRUCTURE
(SEE SHT. C16 FOR DETAILS)

STA 1+94.73 LINE 'D'=
STA 0+47 LINE 'F'
CONST. JUNCTION STRUCTURE
(SEE SHT. C15 FOR DETAILS)

STA 0+00 LINE 'F'
CONST. SLOPED HDWL.
SEE THIS SHEET FOR DETAIL

STA 0+00 LINE 'G'
CONST. SLOPED HDWL.
SEE THIS SHEET FOR DETAIL

STA 0+62 LINE 'G'
STA 3+20.05 LINE 'H'
REMOVE & DISPOSE EXIST. HDWL.
INST. 4' DIA STD. MH.
TOP= 641.00
FL= 636.93

STA 0+00 LINE 'H'
REMOVE & DISPOSE EXIST. HDWL.
INST. 4' DIA STD. MH.
TOP= 640.34
FL= 637.85

STA 2+40.50 LINE 'B'
END 27" RCP, BEGIN 18" RCP

STA 2+37.50 LINE 'B'
45° FACTORY WYE

STA 2+33.50 LINE 'B'
45° FACTORY WYE

STA 3+92.50 LINE 'B'
45° FACTORY WYE

STA 3+95.50 LINE 'B'
END & PLUG 18" RCP

STA 0+06 LAT 'B-1'
INST. TWO-GRATE INLET
INV 639.10, FL=636.10
HG=638.82

STA 1+98.50 LINE 'B'=
STA 0+00 LAT 'B-1'
60° FACTORY WYE

ORIFACE PLATE DIMENSIONS
W = 2.26'
H = 2.00'
2

PLAN

SECTION B-B

SECTION A-A

SLOPED HEADWALL
N.T.S.

1

2

N

0 20 40 60 80
SCALE IN FEET

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

NOTES:

1. REFER TO ARCHITECTS PLANS FOR ROOF DRAIN LOCATIONS FOR ALL BUILDINGS. PLUMBING ENGINEER TO DESIGN ROOF DRAINS.
2. SEE LANDSCAPE ARCHITECT PLANS FOR AREA DRAIN LOCATIONS, PIPING AND SIZES IN OPEN SPACE AREAS AND COURTYARDS.
3. PIPES UNDER BUILDING SLABS SHALL CONFORM TO PLUMBING CODE REQUIREMENTS.

Kimley-Horn and Associates, Inc.
6700 Dallas Parkway, Suite 850
Plano, Texas 75024
FIRM No. 928
972-770-1300

No.	Revision	Date
1	REVISED INLETS & STORM DRAIN	11/17/11
2	REVISED ORIFACE PLATE DIM.	4/18/13

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
4-18-13

Keller Springs Lofts

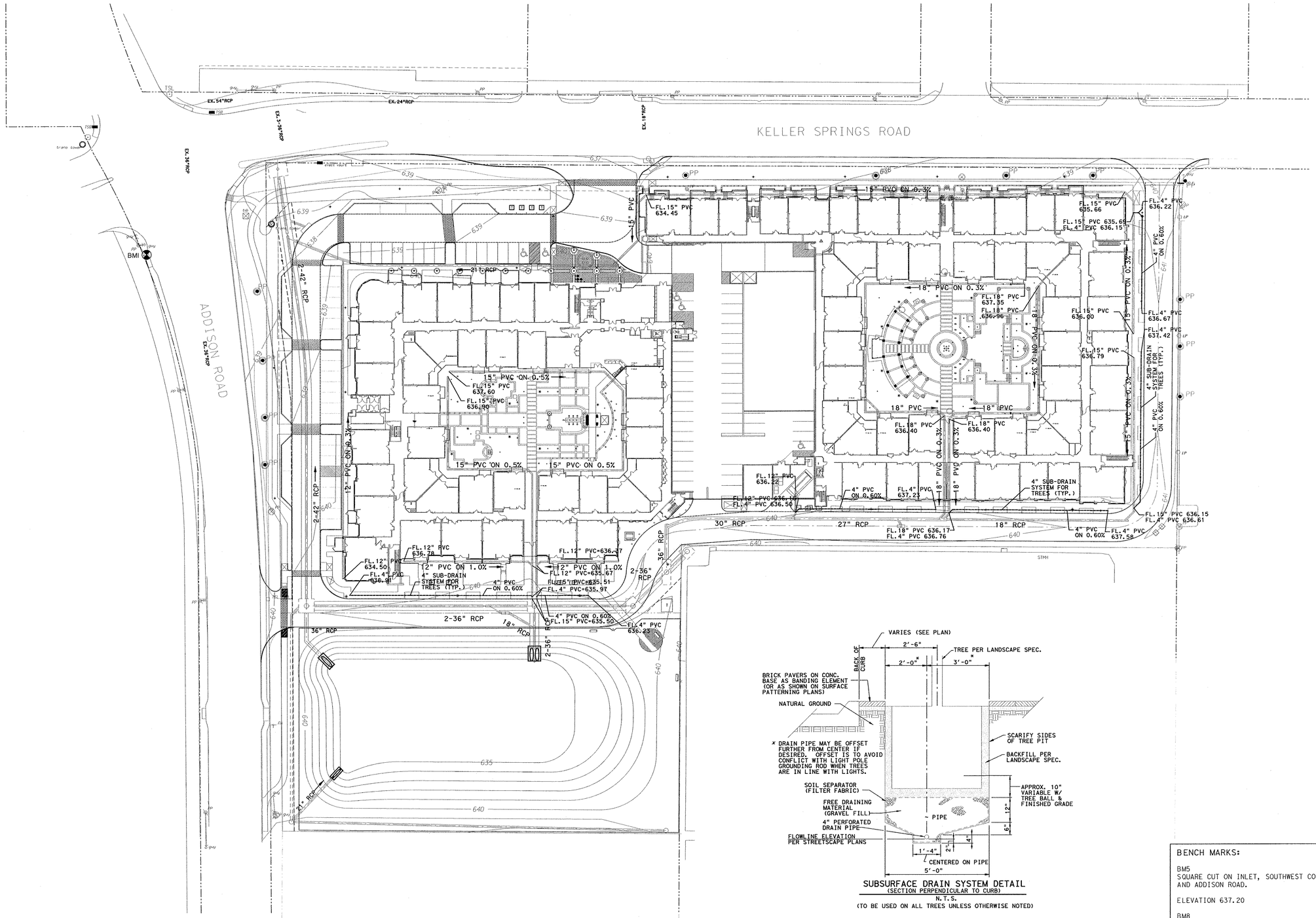
Loft Apartments in Addison

Town of Addison, Texas

STORM SEWER PLAN

DATE: FEBRUARY 28, 2013
DESIGN: KHA
DRAWN: KHA
CHECKED:KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C8



SUBSURFACE DRAIN SYSTEM DETAIL
(SECTION PERPENDICULAR TO CURB)
N.T.S.
(TO BE USED ON ALL TREES UNLESS OTHERWISE NOTED)

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-1818 972-770-1300
Firm No. 928

No.	Revision	Date

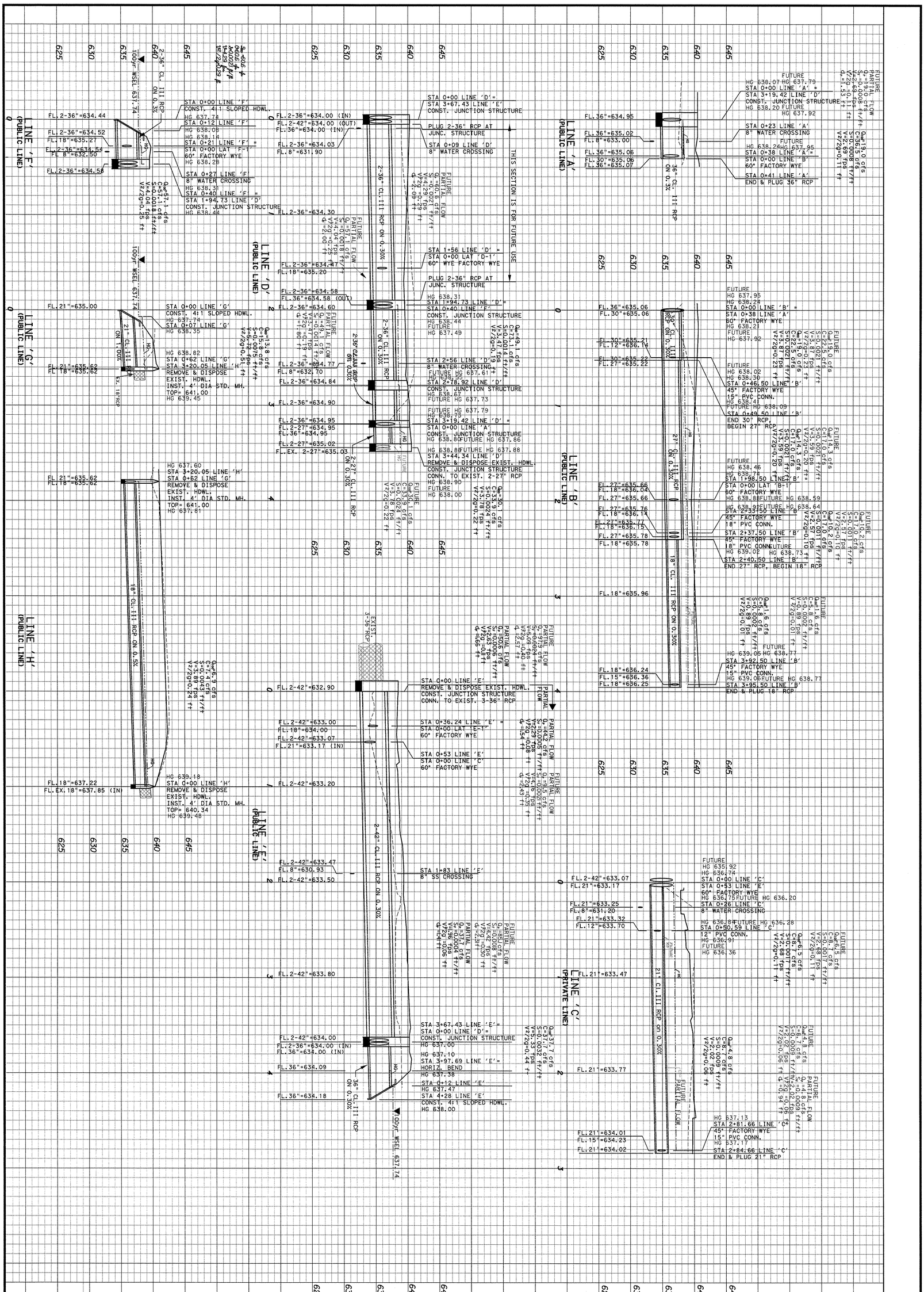
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

TREE DRAIN PLAN

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C8a



SHEET C9	DATE: OCTOBER 11, 2011	STORM SEWER PROFILES	Keller Springs Lofts Loft Apartments in Addison Town of Addison, Texas
	DESIGN: KHA		
	DRAWN: KHA		
	CHECKED: KHA		
	KHA NO.: 064362003		
	CITY NO.:		

STATE OF TEXAS — DAVID E. MEYERS — 81512 — REGISTERED PROFESSIONAL ENGINEER — 10-11-11

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1900
Dallas, TX 75251-1516 972-770-1300
Firm No. 928

No.	Revision	Date

CAUTION!!
EXIST. GAS MAIN IN AREA
CONTACT TEXAS ONE CALL
1-800-245-4545
48 HOURS PRIOR TO
CONSTRUCTION

SAWCUT, REMOVE & RESTORE ASPHALT PAVEMENT

INSTALL:
1-16"x8" TAPPING SLEEVE AND VALVE/BOX

CONNECT TO EX. 4" GAS
INSTALL: 1-SVC TAP

APPROX. LOCATION EX. 4" GAS LINE

50 LF UNDERCROSSING
BY OTHER THAN OPEN CUT.
DESIGN AND INSTALLATION
BY GAS FRANCHISE PROVIDER.

CONNECT TO
EXIST. MH
RIM= 637.34
FL(OUT)= 629.20(N)
FL(IN)= 629.30(S)

SAWCUT, REMOVE & RESTORE
CONCRETE PAVEMENT

LINE 'SS-A'

INSTALL:
1-16"x8" TEE
1-16" GATE VALVE/BOX
1-8" VALVE/BOX

KELLER SPRINGS ROAD

60 LF 10" SS LAT. AT 2.0%
W/DBL. CLEANOUT

35 LF UNDERCROSSING
BY OTHER THAN OPEN CUT
(EXIST. ASPHALT PVMT.)

SAWCUT, REMOVE & RESTORE
ASPHALT PAVEMENT

FL=630.50

INSTALL:
1-2" IRR. SERVICE
1-2" METER
1-DOUBLE CHECK VALVE
ASSEMBLY

2" GAS SERVICE

GAS METER

1" GAS SERVICE (PER MEP PLANS)

INSTALL:
1-8"x6" ANCHORING F.H. TEE
1-6" GATE VALVE/BOX
1-6" 45° BEND
20 LF 6" WATER
1-F.H. CONCRETE BLOCKING

LINE 'SS-B'

50 LF UNDERCROSSING
BY OTHER THAN OPEN CUT

CONNECT TO
EXIST. MH
RIM= 639.46
FL(OUT)= 626.91(N)
FL(IN)= 627.01(E)

INSTALL 8" WATER

FL=632.12

INSTALL:
1-2" IRR. SERVICE
1-2" METER
1-DOUBLE CHECK VALVE
ASSEMBLY

146 LF 10" SS LAT. AT 3.5%
W/DBL. CLEANOUT

INSTALL:
1-6" DOMESTIC WATER SERVICE
INCLUDING BYPASS INSIDE VAULT
1-8"x6" TEE
1-6" GATE VALVE/BOX
CONNCRETE BLOCKING
1-8" GATE VALVE/BOX
1-6" HERSEY MVR 350 TURBINE METER
WITH PITPAK
1-PRE-CAST BOX
SEE DETAIL SHEET C21

INSTALL:
1-8"x6" ANCHORING F.H. TEE
1-6" GATE VALVE/BOX
24 LF 6" WATER
1-FIRE HYDRANT CONC. BLOCKING

INSTALL:
1-8"x6" TEE
1-6" GATE VALVE/BOX
7.5 LF 6" WATER
1-FIRE HYDRANT CONC. BLOCKING

INSTALL 8" WATER

INSTALL:
1-8" 45° BEND

INSTALL:
1-8" 45° BEND

INSTALL:
1-8"x6" ANCHORING F.H. TEE
1-6" GATE VALVE/BOX
25.5 LF 6" WATER
1-FIRE HYDRANT CONC. BLOCKING
1-8" GATE VALVE/BOX

INSTALL:
1-8" FIRE SERVICE INCLUDING BYPASS INSIDE VAULT
1-8"x8" TEE
2-8" GATE VALVE/BOX
CONCRETE BLOCKING
1-8" DOUBLE CHECK DETECTOR ASSEMBLY
1-PRE-CAST-BOX
SEE DETAIL SHEET C21

INSTALL:
1-8"x6" ANCHORING F.H. TEE
1-6" GATE VALVE/BOX
23.5 LF 6" WATER
1-FIRE HYDRANT
CONC. BLOCKING

INSTALL:
1-8" 45° BEND

INSTALL:
1-8" 90° BEND

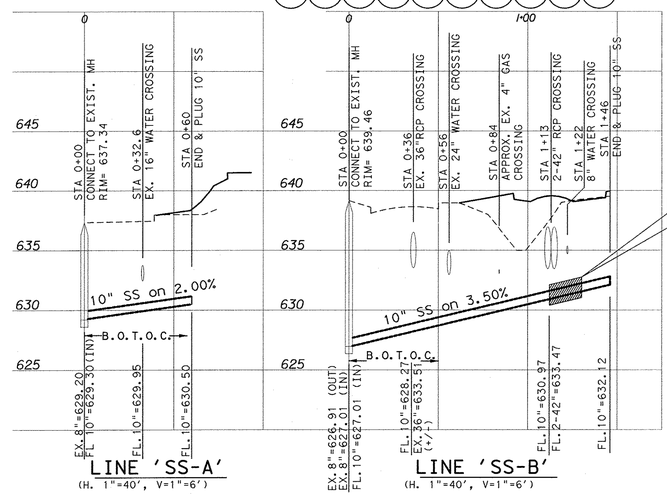
INSTALL:
1-8"x6" ANCHORING F.H. TEE
1-6" GATE VALVE/BOX
27 LF 6" WATER
1-F.H. CONCRETE BLOCKING
1-8" VALVE/BLOCK

INSTALL:
1-8" 45° BEND

CENTER ONE JOINT OF WATER
LINE OVER SANITARY SEWER
CROSSING

ADDISON ROAD

INSTALL 18 LF CEMENT
STABILIZED SAND (10% PER CY)



BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

3 ADDED FIRE HYDRANT 10/5/11

SCALE IN FEET 0 20 40 60 80

Kimley-Horn and Associates, Inc.
2700 Post Oak Blvd., Suite 1600
Houston, TX 77056-5810 972-770-1300
Texas Reg. No. 928

No.	Revision	Date
1	REVISED WATER SERVICE AND FIRE SERVICE NOTES	8/26/11
2	RELOCATED FIRE HYDRANTS PER TOWN & REVISED LINE SS-B	9/14/11

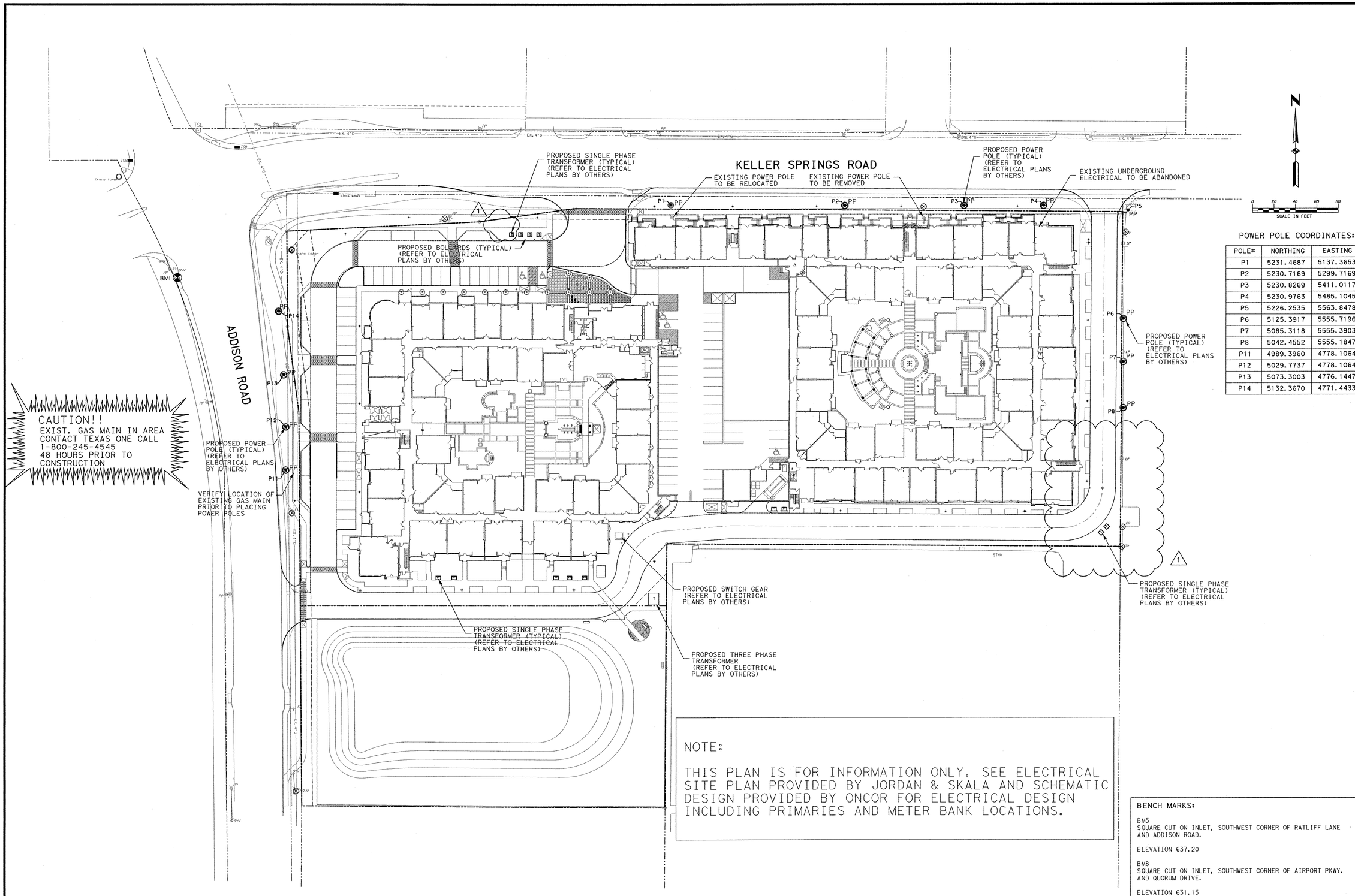
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-11-11

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

WATER AND WASTEWATER PLAN - PROFILE

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C10



POWER POLE COORDINATES:

POLE#	NORTHING	EASTING
P1	5231.4687	5137.3653
P2	5230.7169	5299.7169
P3	5230.8269	5411.0117
P4	5230.9763	5485.1045
P5	5226.2535	5563.8478
P6	5125.3917	5555.7196
P7	5085.3118	5555.3903
P8	5042.4552	5555.1847
P11	4989.3960	4778.1064
P12	5029.7737	4778.1064
P13	5073.3003	4776.1447
P14	5132.3670	4771.4433

NOTE:

THIS PLAN IS FOR INFORMATION ONLY. SEE ELECTRICAL SITE PLAN PROVIDED BY JORDAN & SKALA AND SCHEMATIC DESIGN PROVIDED BY ONCOR FOR ELECTRICAL DESIGN INCLUDING PRIMARIES AND METER BANK LOCATIONS.

BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-1518 972-770-1300
Firm No. 928

No.	Revision	Date
1	REVISED TRANSFORMERS AND POWER POLE LAYOUTS	9/19/11

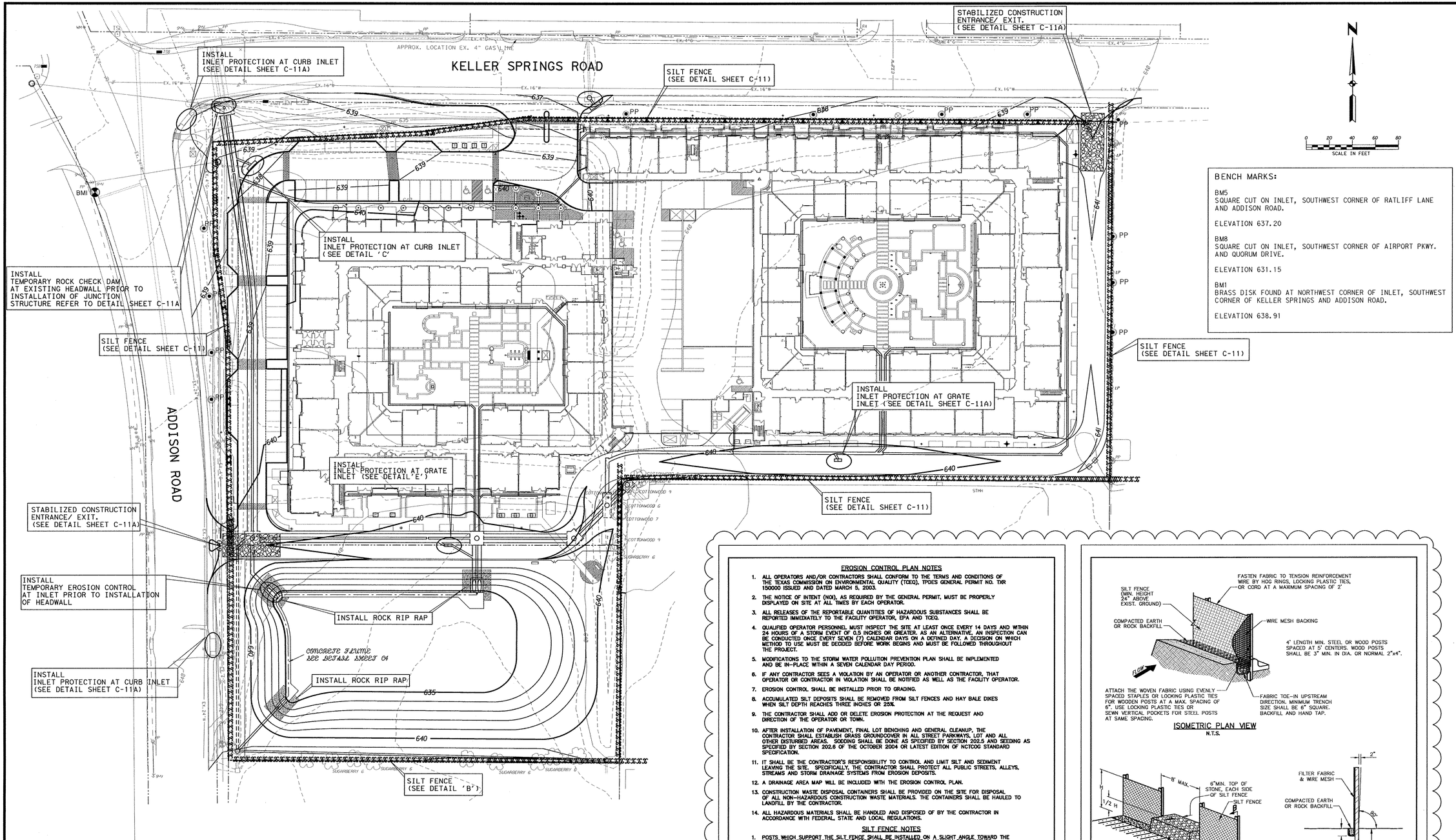
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-21-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

ELECTRICAL SITE PLAN

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C10a



BENCH MARKS:

BM5
SQUARE CUT ON INLET, SOUTHWEST CORNER OF RATLIFF LANE AND ADDISON ROAD.

ELEVATION 637.20

BM8
SQUARE CUT ON INLET, SOUTHWEST CORNER OF AIRPORT PKWY. AND QUORUM DRIVE.

ELEVATION 631.15

BM1
BRASS DISK FOUND AT NORTHWEST CORNER OF INLET, SOUTHWEST CORNER OF KELLER SPRINGS AND ADDISON ROAD.

ELEVATION 638.91

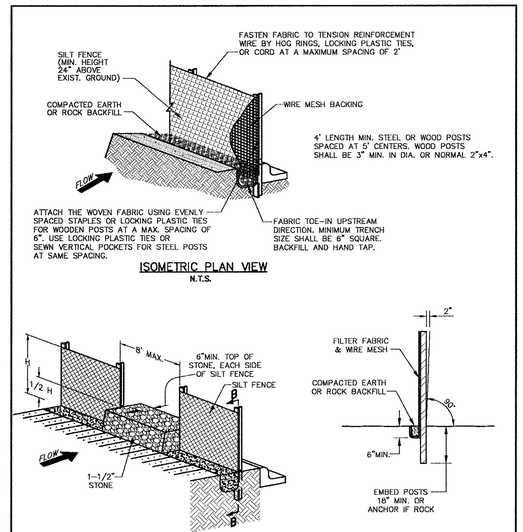
EROSION CONTROL PLAN NOTES

1. ALL OPERATORS AND/OR CONTRACTORS SHALL CONFORM TO THE TERMS AND CONDITIONS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), TPDES GENERAL PERMIT NO. TXR 150000 ISSUED AND DATED MARCH 5, 2003.
2. THE NOTICE OF INTENT (NOI), AS REQUIRED BY THE GENERAL PERMIT, MUST BE PROPERLY DISPLAYED ON SITE AT ALL TIMES BY EACH OPERATOR.
3. ALL RELEASES OF THE REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES SHALL BE REPORTED IMMEDIATELY TO THE FACILITY OPERATOR, EPA AND TCEQ.
4. QUALIFIED OPERATOR PERSONNEL MUST INSPECT THE SITE AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER. AS AN ALTERNATIVE, AN INSPECTION CAN BE CONDUCTED ONCE EVERY SEVEN (7) CALENDAR DAYS ON A DEFINED DAY. A DECISION ON WHICH METHOD TO USE MUST BE DECIDED BEFORE WORK BEGINS AND MUST BE FOLLOWED THROUGHOUT THE PROJECT.
5. MODIFICATIONS TO THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE IMPLEMENTED AND BE IN-PLACE WITHIN A SEVEN CALENDAR DAY PERIOD.
6. IF ANY CONTRACTOR SEES A VIOLATION BY AN OPERATOR OR ANOTHER CONTRACTOR, THAT OPERATOR OR CONTRACTOR IN VIOLATION SHALL BE NOTIFIED AS WELL AS THE FACILITY OPERATOR.
7. EROSION CONTROL SHALL BE INSTALLED PRIOR TO GRADING.
8. ACCUMULATED SILT DEPOSITS SHALL BE REMOVED FROM SILT FENCES AND HAY BALE DIKES WHEN SILT DEPTH REACHES THREE INCHES OR 25%.
9. THE CONTRACTOR SHALL ADD OR DELETE EROSION PROTECTION AT THE REQUEST AND DIRECTION OF THE OPERATOR OR TOWN.
10. AFTER INSTALLATION OF PAVEMENT, FINAL LOT BENCHING AND GENERAL CLEANUP, THE CONTRACTOR SHALL ESTABLISH GRASS GROUNDCOVER IN ALL STREET PARKWAYS, LOT AND ALL OTHER DISTURBED AREAS. SODDING SHALL BE DONE AS SPECIFIED BY SECTION 202.5 AND SEEDING AS SPECIFIED BY SECTION 202.6 OF THE OCTOBER 2004 OR LATEST EDITION OF NCTCOG STANDARD SPECIFICATION.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS AND STORM DRAINAGE SYSTEMS FROM EROSION DEPOSITS.
12. A DRAINAGE AREA MAP WILL BE INCLUDED WITH THE EROSION CONTROL PLAN.
13. CONSTRUCTION WASTE DISPOSAL CONTAINERS SHALL BE PROVIDED ON THE SITE FOR DISPOSAL OF ALL NON-HAZARDOUS CONSTRUCTION WASTE MATERIALS. THE CONTAINERS SHALL BE HAULED TO LANDFILL BY THE CONTRACTOR.
14. ALL HAZARDOUS MATERIALS SHALL BE HANDLED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SILT FENCE NOTES

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. THE POST MUST BE EMBEDDED A MINIMUM OF 16 INCHES.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON THE UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 8 INCHES DEEP AND 8 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHALL BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE SUPPORT POST. THERE SHALL BE A 6 INCH DOUBLE OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 3 INCHES. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

Addison! PUBLIC WORKS DEPARTMENT | EROSION CONTROL & SILT FENCE NOTES | STANDARD CONSTRUCTION DETAILS EROSION CONTROL | DATE: AUGUST, 2010 | REV DATE: – | SHEET : SD-EC01



Addison! PUBLIC WORKS DEPARTMENT | SILT FENCE DETAIL | STANDARD CONSTRUCTION DETAILS EROSION CONTROL | DATE: AUGUST, 2010 | REV DATE: – | SHEET : SD-EC02

1

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2700 Post Oak Blvd., Suite 1600
Dallas, TX 75265-1519 972-770-1300
Texas Reg. No. 928

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
8-11-2011

Keller Springs Lofts

Loft Apartments in Addison

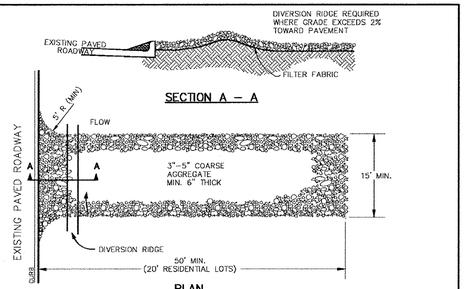
Town of Addison, Texas

POLLUTION CONTROL PLAN

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED:KHA
KHA NO.: 064362003
CITY NO.:

SHEET

C11

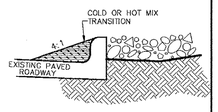


TEMPORARY STONE CONSTRUCTION ENTRANCE/EXIT

N.T.S.

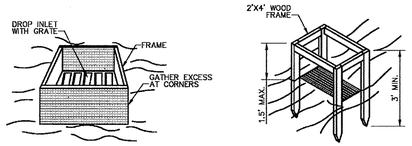
STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

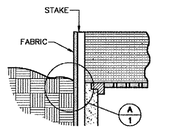
1. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
3. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
4. WHEN SEDIMENT HAS SUBSTANTIALLY CLOGGED THE VOID AREA BETWEEN THE ROCKS, THE AGGREGATE MAT MUST BE WASHED DOWN OR REPLACED. PERIODIC RE-GRADING AND TOP DRESSING WITH ADDITIONAL STONE MUST BE DONE TO KEEP THE EFFICIENCY OF THE ENTRANCE FROM DIMINISHING.

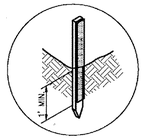


TRANSITION

PUBLIC WORKS DEPARTMENT	TEMPORARY STONE CONSTRUCTION ENTRANCE/EXIT	STANDARD CONSTRUCTION DETAILS EROSION CONTROL		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-EC03

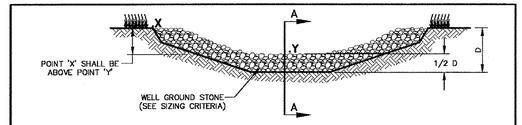


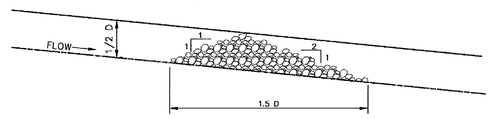


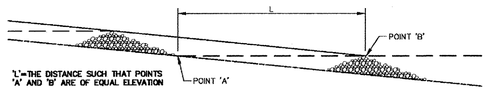


SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVER-LAND FLOWS (NOT TO EXCEED 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREETS OR HIGHWAY MEDIANS.

PUBLIC WORKS DEPARTMENT	GRATE AND WYE INLET PROTECTION	STANDARD CONSTRUCTION DETAILS EROSION CONTROL		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-EC04



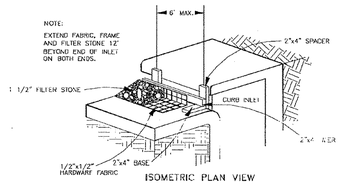


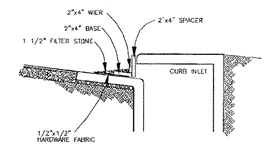


ROCK CHECK DAM NOTES:

1. STONE SHALL BE WELL GRADED STONE WITH SIZE RANGE FROM 1–1/2 TO 3–1/2 INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
3. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

PUBLIC WORKS DEPARTMENT	ROCK CHECK DAM	STANDARD CONSTRUCTION DETAILS EROSION CONTROL		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-EC05





TYPE B CURB INLET PROTECTION

N.T.S.

NOTE:
ROCK SHALL NOT ENCROACH ON TRAVEL LANES

2

1

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1900
Dallas, TX 75251-1808 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11
2	REVISED TYPE B CURB INLET PROTECTION DETAIL	9/19/11

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts

Loft Apartments in Addison

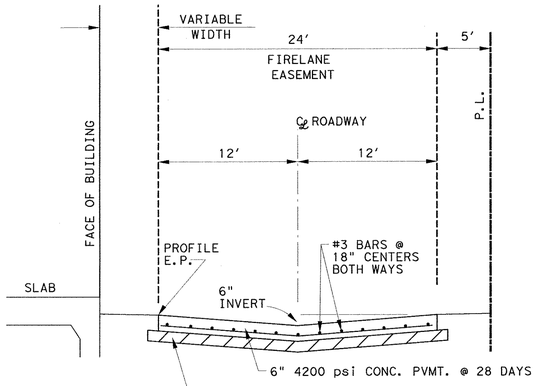
Town of Addison, Texas

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED:KHA
KHA NO.: 064362003
CITY NO.:

POLLUTION CONTROL PLAN

SHEET

C11a



FIRELANE
BEHIND BUILDING
LOOKING NORTH/EAST

1

PAVING – GENERAL NOTES

1. GENERAL:
PAVEMENT THICKNESS IS AS SHOWN IN ITEM 7. SUBGRADE DESIGN SHALL CONFORM TO TOWN OF ADDISON PUBLIC WORKS REQUIREMENTS IN ITEM 3, AND SHALL EXTEND 12" MIN. BEHIND THE BACK OF CURB.

2. REINFORCED CONCRETE PAVEMENT:
A. CONCRETE STRENGTH SHALL BE AS SHOWN IN ITEM 7 (NCTCOG LATEST EDITION).
B. ALL CURBS SHALL BE INTEGRAL WITH PAVEMENT AND SHALL BE OF THE SAME STRENGTH AS CONCRETE PAVEMENT.
C. DETAIL AND ARRANGEMENT OF PAVEMENT JOINTS, ALL TYPES, SHALL BE AS SHOWN ON THE TOWN STANDARD CONSTRUCTION DETAILS.
D. BAR LAPS SHALL BE THIRTY DIAMETERS.
E. REINFORCING STEEL SHALL BE #3 REBAR (3/8") ON 18" CENTERS FOR 8" OR LESS. #4 FOR 10" OR ABOVE

3. SUBGRADE:
SUBGRADE UNDER ALL PAVEMENT SHALL BE 6" THICK AND SHALL BE STABILIZED WITH AT LEAST 30 LBS. PER SQ. YD. HYDRATED LIME, COMPACTED TO A DENSITY NOT LESS THAN 95 PERCENT. LABORATORY TESTS MUST BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR APPROVAL TO DETERMINE AMOUNT OF LIME REQUIRED. LABORATORY TEST MAY BE WAIVED PROVIDED AT LEAST 36 LBS. OF LIME PER SQ. YD. IS USED. SEE NCTCOG ITEM 301.2 "LIME TREATMENT". FLEXIBLE BASE (CRUSHED STONE/CONCRETE) PER NCTCOG ITEM 301.5 MAY BE SUBSTITUTED FOR LIME TREATMENT WITH THE APPROVAL OF THE TOWN ENGINEER.

4. REBAR SHALL BE SUPPORTED BY BAR CHAIRS OR OTHER DEVICES APPROVED BY TOWN ENGINEER.

5. NO TRAFFIC ON FINISHED SUBGRADE SHALL BE PERMITTED AFTER REINFORCING STEEL IS INSTALLED ABOVE SUBGRADE. NO TRAFFIC SHALL BE PERMITTED BEFORE OR DURING THE PLACING OF CONCRETE.

6. CROSS SLOPE OF STRAIGHT CROWN STREETS SHALL BE 1/4" PER FOOT UNLESS APPROVED BY THE TOWN ENGINEER.

7. PAVEMENT THICKNESS AND STRENGTHS SHALL BE AS FOLLOWS:
MAJOR ARTERIAL – 10" CLASS "P1" OR "P2."
MINOR ARTERIAL – 8" CLASS "P1" OR "P2."
COMMERCIAL/INDUSTRIAL COLLECTOR – 8" CLASS "P1" OR "P2."
RESIDENTIAL COLLECTOR – 6" CLASS "P1" OR "P2."
RESIDENTIAL LOCAL – 6" CLASS "P1" OR "P2."
SIDEWALK AND BFR's–4"–CLASS "A"
DRIVE APPROACH–8"–CLASS "P2"
ALLEY–6" CLASS "P1" OR "P2."

8. CONCRETE MIX DESIGN SHALL BE AS DEFINED BY NCTCOG 303.3.

9. ALL MEDIANS AND PARKWAYS SHALL BE PROVIDED WITH BERMUDA GROUND COVER.

10. ONCE A CURB ABUTTING A THOROUGHFARE HAS BEEN SAWCUT AND REMOVED, THE CONTRACTOR MUST REPLACE THE CONCRETE WITH A NEW POUR (i.e. DRIVEWAY) WITHIN 14 CALENDAR DAYS. LIQUIDATED DAMAGES WILL BE ASSESSED AT $500 PER DAY FOR EACH CALENDAR DAY IN EXCESS OF 14 CALENDAR DAYS. PAYMENT SHALL BE MADE PRIOR TO ACCEPTANCE OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

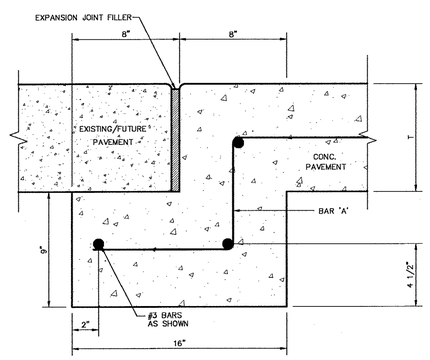
11. ALL SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% AND A MAXIMUM CROSS SLOPE OF 2%.

12. ALLEYS AND DRIVEWAYS

A. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLAN.

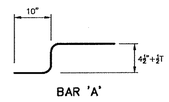
B. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO PARABOLIC STREET PAVEMENT.

PUBLIC WORKS DEPARTMENT	PAVING GENERAL NOTES	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-P01



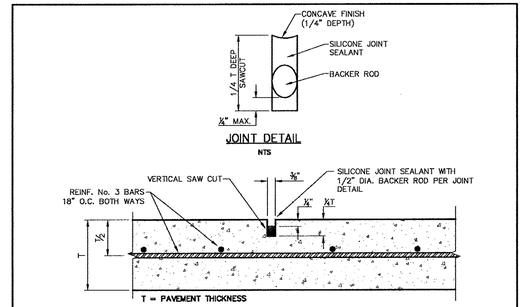
NOTES:
1. PAVEMENT BARS TO BE BENT DOWN INTO HEADER.
2. HEADER AND PAVEMENT TO BE MONOLITHIC.

T=PAVEMENT THICKNESS



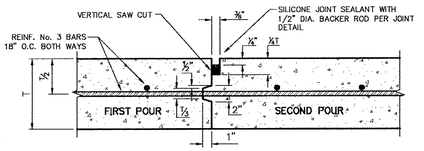
STREET HEADER
NTS

PUBLIC WORKS DEPARTMENT	STREET HEADER	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-P15



JOINT DETAIL
NTS

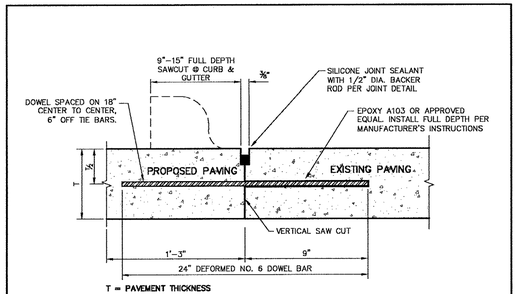
SAWED DUMMY JOINTS
NTS



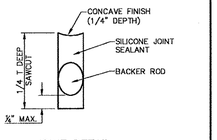
NOTE: CONTRACTOR SHALL PROTECT KEYWAY PRIOR TO SECOND POUR. IF LONGITUDINAL KEYWAY IS DAMAGED, CONTRACTOR SHALL REPAIR WITH THE USE OF LONGITUDINAL BUTT JOINT, DRILL AND GROUT DOWELS INTO FIRST POUR.

CONSTRUCTION JOINTS FOR PAVEMENT
NTS
TRANSVERSE AND LONGITUDINAL JOINTS

PUBLIC WORKS DEPARTMENT	JOINT DETAILS	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-P18



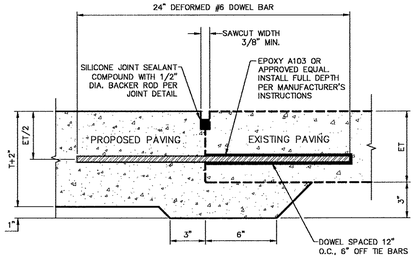
NOTES:
1. NO. 5 DEFORMED BAR MAY BE USED IN 6 INCH PAVEMENT.
2. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
3. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
4. DRILLING BY HAND IS NOT ACCEPTABLE. PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

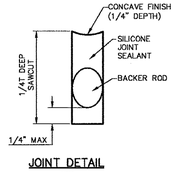


JOINT DETAIL
NTS

LONGITUDINAL BUTT JOINT
NTS

PUBLIC WORKS DEPARTMENT	LONGITUDINAL BUTT JOINT	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-P19





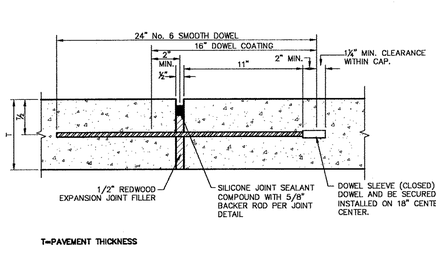
JOINT DETAIL
NTS

NOTE:
1. NO. 5 DEFORMED DOWEL BAR MAY BE USED IN 6 INCH PAVEMENT.
2. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
3. DRILLING BY HAND IS NOT ACCEPTABLE. PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

T=PROPOSED PAVEMENT THICKNESS
ET=EXISTING PAVEMENT THICKNESS

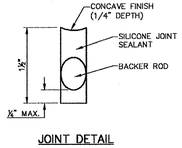
PAVEMENT REPAIR HEADER
NTS

PUBLIC WORKS DEPARTMENT	PAVEMENT REPAIR HEADER	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-P16



T=PAVEMENT THICKNESS

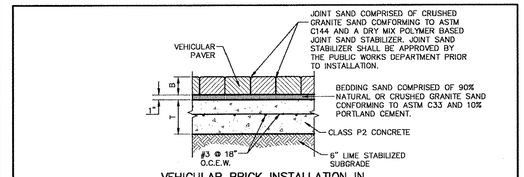
NOTES:
1. DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE AND MUST BE TIED OR CHAIRED ON EACH SIDE.
2. DOWELS MUST BE PERPENDICULAR TO FACE OF CONCRETE.
3. NO. 5 SMOOTH DOWEL BARS MAY BE USED IN 6" PAVEMENT.
4. TRANSVERSE EXPANSION JOINTS SHALL HAVE A MAXIMUM SPACING OF 600 FT.
5. TRANSVERSE EXPANSION JOINTS SHALL BE LOCATED AT INTERSECTIONS.



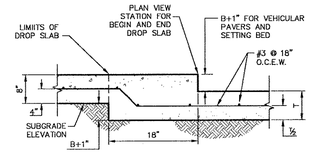
JOINT DETAIL
NTS

TRANSVERSE EXPANSION JOINT
N.T.S.

PUBLIC WORKS DEPARTMENT	TRANSVERSE EXPANSION JOINT	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-P20

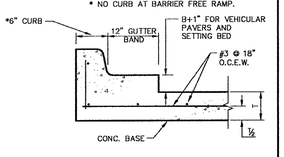


VEHICULAR BRICK INSTALLATION IN VEHICULAR AREAS
NTS



LONGITUDINAL SECTION AT DROP SLAB
NTS

* NO CURB AT BARRIER FREE RAMP.



SECTION THRU CURB AT DROP SLAB
NTS

NOTES:
1. VEHICULAR PAVERS SHALL BE HEAVY PAVING BRICK MEETING ASTM C1272, TYPE R, APPLICATION AND BE APPROVED BY THE PUBLIC WORKS DEPT.
2. PROVIDE BRICK WITHOUT FROGS OR CORES, IN SURFACES EXPOSED TO VIEW IN COMPLETED WORK.

T=PAVEMENT THICKNESS
B=BRICK PAVER THICKNESS

PUBLIC WORKS DEPARTMENT	VEHICULAR BRICK INSTALLATION IN VEHICULAR AREAS	STANDARD CONSTRUCTION DETAILS PAVING		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : S2-P21

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

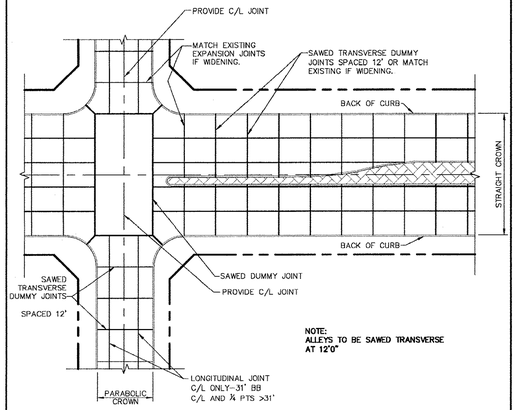
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-21-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

PAVING DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C12

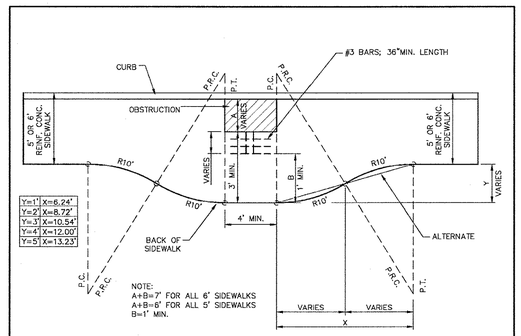


SPACING DIAGRAM FOR TRANSVERSE JOINTS

NTS

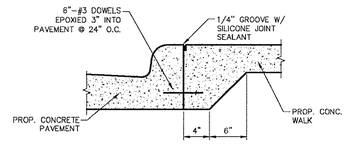
Addison!
PUBLIC WORKS DEPARTMENT

SPACING DIAGRAM FOR TRANSVERSE JOINTS	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P22



SIDEWALK WIDENING REQUIRED AROUND OBSTACLE IN SIDEWALK

NTS



JOINT DETAIL FOR SIDEWALKS ADJACENT TO CURB

NTS

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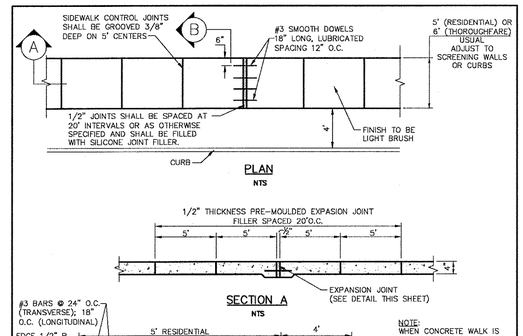
PUBLIC WORKS DEPARTMENT

SIDEWALK WIDENING REQUIRED AROUND OBSTACLE IN SIDEWALK & JOINT DETAIL FOR SIDEWALKS ADJACENT TO CURB	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P25

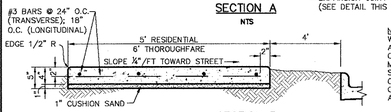


PLAN

NTS

SECTION A

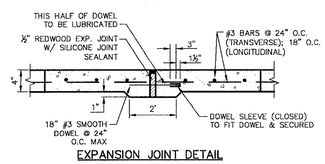
NTS



SECTION B

NTS

NOTE:
WHEN CONCRETE WALK IS ADJACENT TO CURB, DEPTH OF EXPANSION JOINT MATERIAL SHALL BE SUFFICIENT TO PREVENT CONCRETE TO CONCRETE CONTACT BETWEEN WALK AND CURB.



EXPANSION JOINT DETAIL

NTS

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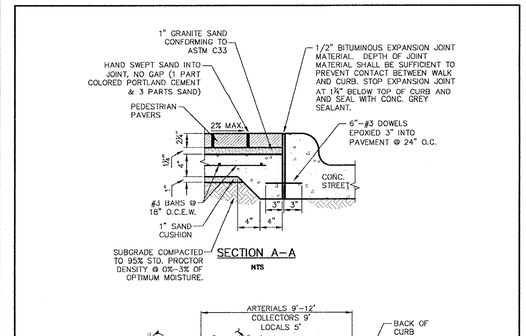
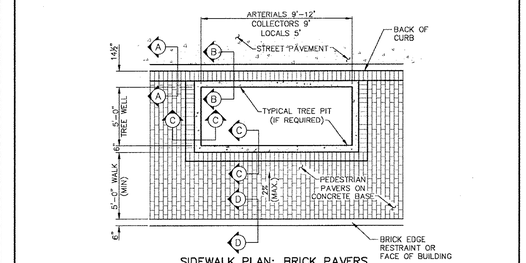
PUBLIC WORKS DEPARTMENT

CONCRETE SIDEWALK	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P26



SECTION A–A

NTS



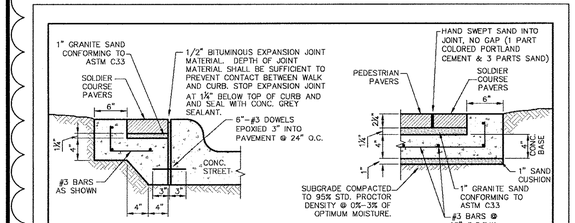
SIDEWALK PLAN: BRICK PAVERS

NTS

NOTE:
SEE SD-P29 FOR ADDITIONAL SECTIONS AND GENERAL NOTES

Addison!
PUBLIC WORKS DEPARTMENT

SIDEWALK BRICK PAVERS	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P28

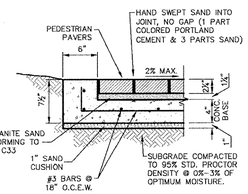


SECTION B–B

NTS

SECTION C–C

NTS



SECTION D–D

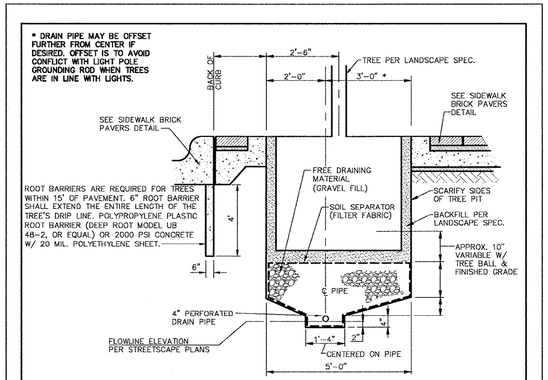
NTS

NOTES:

1. PEDESTRIAN PAVERS AND SOLDIER COURSE PAVERS SHALL BE LIGHT TRAFFIC PAVING BRICK MEETING ASTM C902, CLASS SX, TYPE II, APPLICATION PX, W/ DIMENSIONS (W)4"X(L)8"X(T)2¼".
2. PEDESTRIAN PAVERS SHALL BE APPROVED BY PUBLIC WORKS.
3. PROVIDE BRICK WITHOUT FROGS OR CORES, IN SURFACES EXPOSED TO VIEW IN COMLETED WORK.

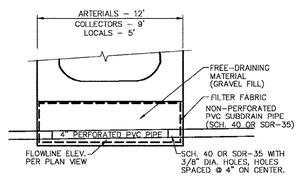
Addison!
PUBLIC WORKS DEPARTMENT

SIDEWALK BRICK PAVERS CONTINUED	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P29



SECTION PERPENDICULAR TO CURB

NTS



SECTION PARALLEL TO CURB

NTS

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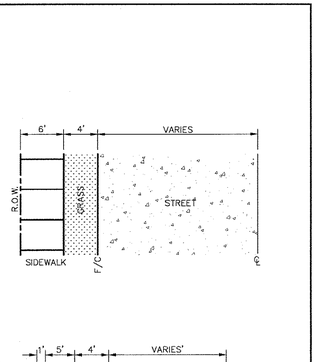
PUBLIC WORKS DEPARTMENT

SUBSURFACE DRAIN SYSTEM	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P30



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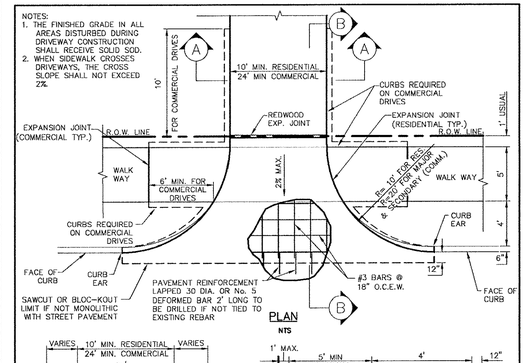
PUBLIC WORKS DEPARTMENT

CONCRETE SIDEWALK CONTINUED	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P27



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PUBLIC WORKS DEPARTMENT

DRIVEWAY RETURN DETAILS	STANDARD CONSTRUCTION DETAILS PAVING		
	DATE: AUGUST, 2010	REV DATE: –	SHEET: SD-P31

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251
972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts

Loft Apartments in Addison

Town of Addison, Texas

PAVING DETAILS

DATE:	OCTOBER 11, 2011
DESIGN:	KHA
DRAWN:	KHA
CHECKED:	KHA
KHA NO.:	064362003
CITY NO.:	

SHEET

C12a

GENERAL NOTES FOR PEDESTRIAN FACILITIES

1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.
2. LANDINGS SHALL BE 5'X5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
4. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%
5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
6. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC §68.102.
7. CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE TOWN ENGINEER.
8. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. PROVIDE CURB RAMPS WHEREVER ON ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
9. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
10. BARRIER FREE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS).
11. ALL BARRIER FREE RAMPS MUST PASS AN INDEPENDENT INSPECTION. A LETTER OF COMPLIANCE ACCEPTANCE IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE TOWN OF ADDISON.
12. STREETS ON STEEP GRADE WILL REQUIRE LONGER TRANSITION ON UPGRADE SIDE.
13. MAXIMUM SLOPE ON RAMP PORTION SHALL NOT EXCEED 1" PER FOOT AT ANY LOCATION. VERTICAL DISTANCE BETWEEN STREET AND RAMP SHALL NOT EXCEED ½".

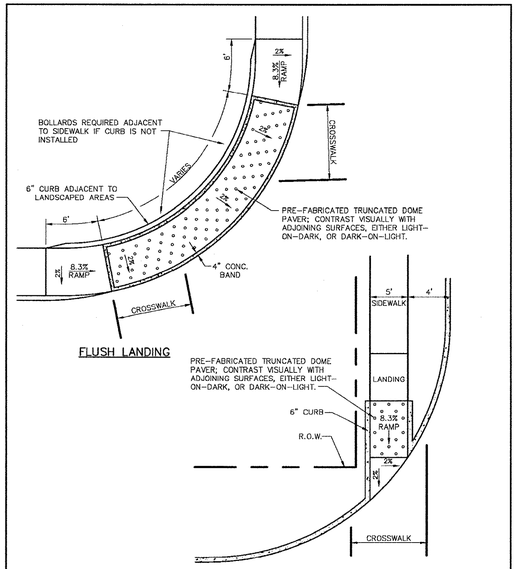
GENERAL NOTES FOR DETECTABLE WARNINGS

1. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSIST OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 4.29 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH THE ADJOINING SURFACES, INCLUDING SIDE FLARES. FURNISH DARK RED COLORED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE AND CREAM COLORED DETECTABLE WARNING SURFACE ADJACENT TO DARK RED COLORED BRICK PAVERS.
2. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
3. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
4. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
5. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 6" AND A MAXIMUM OF 8" FROM THE EXTENSION OF THE FACE OF CURB AND SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.

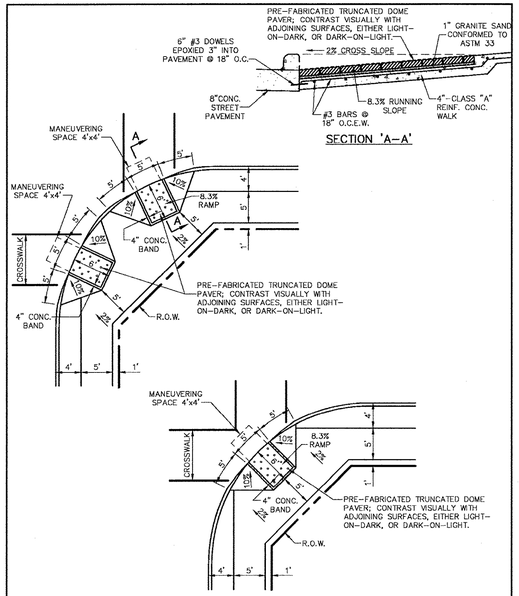
GENERAL NOTES FOR DETECTABLE WARNING PAVER UNITS

1. DETECTABLE WARNING PAVER UNITS SHALL MEET OR EXCEED ALL REQUIREMENTS OF ASTM C-936, C-33, AND BE LAID IN A TWO BY TWO UNIT BASKET WEAVE PATTERN OR AS DIRECTED.
2. LAY FULL-SIZE UNITS FIRST FOLLOWED BY CLOSURE UNITS CONSISTING OF AT LEAST 25 PERCENT OF A FULL UNIT. CUT DETECTABLE WARNING PAVER UNITS USING A POWER SAW.

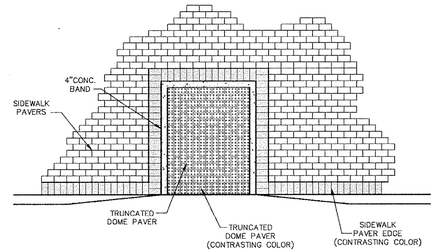
Addison! PUBLIC WORKS DEPARTMENT | PEDESTRIAN FACILITIES GENERAL NOTES | STANDARD CONSTRUCTION DETAILS PAVING | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-P37



Addison! PUBLIC WORKS DEPARTMENT | PEDESTRIAN RAMPS | STANDARD CONSTRUCTION DETAILS PAVING | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-P38

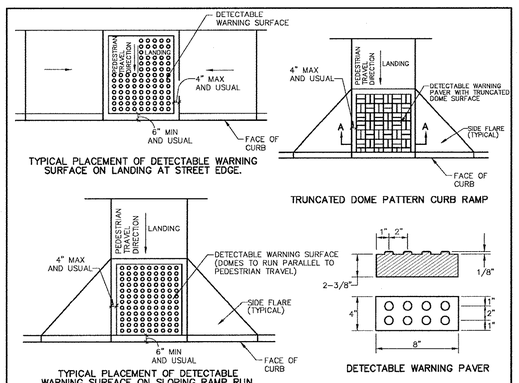


Addison! PUBLIC WORKS DEPARTMENT | BARRIER FREE RAMP (RESIDENTIAL) | STANDARD CONSTRUCTION DETAILS PAVING | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-P39

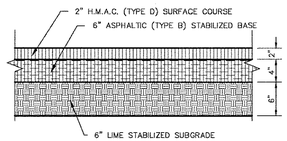


NOTE:
ALL PAVER COLORS TO BE APPROVED BY TOWN OF ADDISON.

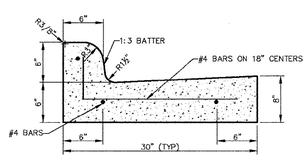
Addison! PUBLIC WORKS DEPARTMENT | TYPICAL PATTERN FOR PAVER SIDEWALK AND CURB RAMP | STANDARD CONSTRUCTION DETAILS PAVING | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-P40



Addison! PUBLIC WORKS DEPARTMENT | DETECTABLE WARNING PAVER | STANDARD CONSTRUCTION DETAILS PAVING | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-P41



NOTE:
CUT OF 6" INTO EXISTING PAVEMENT IS REQUIRED FOR CONSTRUCTION JOINT WITH NEW POURS TO GET A SMOOTH FINISH.



Addison! PUBLIC WORKS DEPARTMENT | CURB AND GUTTER & ASPHALT PAVING CROSS SECTION | STANDARD CONSTRUCTION DETAILS PAVING | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-P06

Kimley-Horn and Associates, Inc.
6200 Hall, Central Drive, Suite 1900, Plano, TX 75093-7855 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
8-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

PAVING DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

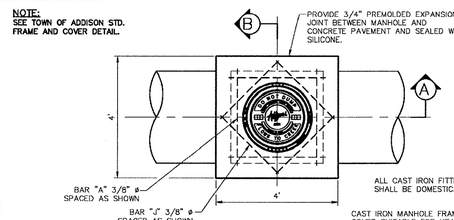
SHEET
C12b

STORM SEWER – GENERAL NOTES:

1. ALL CONCRETE DRAINAGE STRUCTURES SHALL BE CLASS C CONCRETE MINIMUM.
2. ALL CRUSHED STONE SHALL BE 3/4", PASSING #4 SIEVE (GRADE 4).
3. ALL FIELD JOINTS WILL BE APPROVED BY THE TOWN ENGINEER IF NECESSARY. FIELD JOINTS SHALL BE WIPED ON THE INSIDE AND OUTSIDE TO PROVIDE FOR SMOOTH FLOW OF WATER.
4. RAMNECK COMPOUND OR APPROVED EQUAL SHALL BE USED FOR JOINT SEALS.
5. ALL STORM SEWER PIPE SHALL BE CAMERA INSPECTED AFTER THE INSTALLATION OF ALL PAVING AND UTILITIES AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

PUBLIC WORKS DEPARTMENT | STORM SEWER GENERAL NOTES | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-001

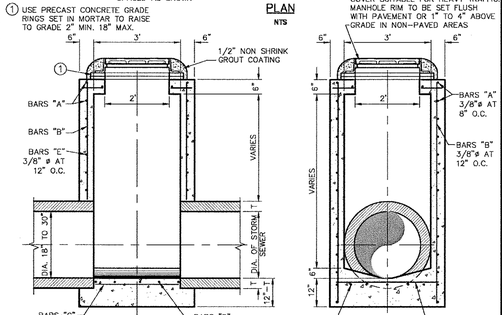
NOTE:
SEE TOWN OF ADDISON STD. FRAME AND COVER DETAIL.



PLAN
NTS

① USE PRECAST CONCRETE GRADE RINGS SET IN MORTAR TO RAISE TO GRADE 2" MIN. 18" MAX.

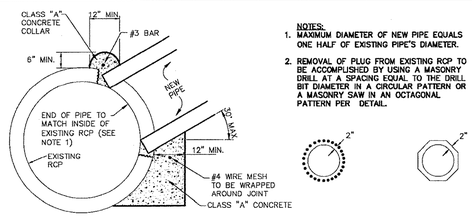
CAST IRON MANHOLE FRAME AND COVER SUITABLE FOR HEAVY TRAFFIC. MANHOLE RIM TO BE SET FLUSH WITH PAVEMENT OR 1" TO 4" ABOVE GRADE IN NON-PAVED AREAS



SECTION A
NTS

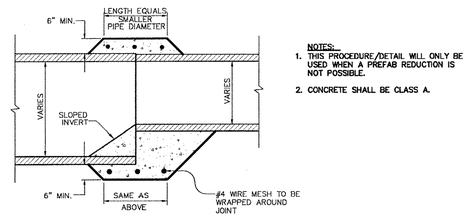
SECTION B
NTS

PUBLIC WORKS DEPARTMENT | TYPE "A" STORM SEWER MANHOLE (FOR 18" TO 30" RCP) | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-006



NOTES:
1. **MAXIMUM DIAMETER OF NEW PIPE EQUALS ONE HALF OF EXISTING PIPE'S DIAMETER.**
2. **REMOVAL OF PLUG FROM EXISTING RCP TO BE ACCOMPLISHED BY USING A MASONRY DRILL AT A SPACING EQUAL TO THE DRILL BIT DIAMETER IN A CIRCULAR PATTERN OR A MASONRY SAW IN AN OCTAGONAL PATTERN PER DETAIL.**

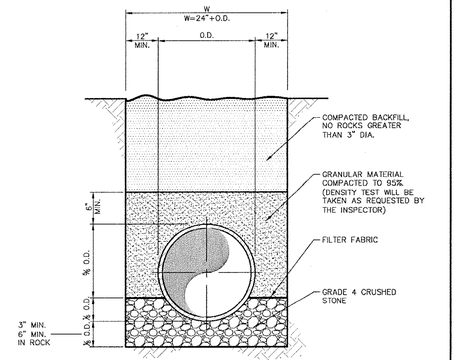
CONNECTION TO EXISTING RCP STORM DRAIN
NTS



NOTES:
1. **THIS PROCEDURE/DETAIL WILL ONLY BE USED WHEN A PREFAB REDUCTION IS NOT POSSIBLE.**
2. **CONCRETE SHALL BE CLASS A.**

PIPE COLLAR
NTS

PUBLIC WORKS DEPARTMENT | CONNECTION TO EXISTING RCP STORM DRAIN PIPE COLLAR | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-005

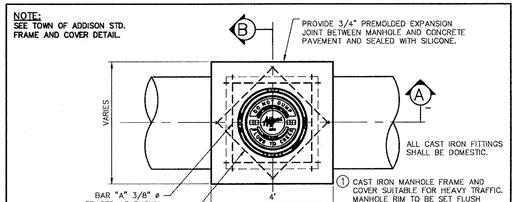


RCP STORM SEWER PIPE BEDDING
NTS

NOTE:
1. **THE DEPTH OF TRENCH BELOW THE PROPOSED CONDUIT SHALL BE AS FOLLOWS:**
   - **3" MIN. FOR 27" PIPE & SMALLER.**
   - **4" MIN. FOR 30" TO 60" PIPE.**
   - **6" MIN. FOR 66" PIPE OR LARGER.**

PUBLIC WORKS DEPARTMENT | RCP STORM SEWER PIPE BEDDING | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-003

NOTE:
SEE TOWN OF ADDISON STD. FRAME AND COVER DETAIL.

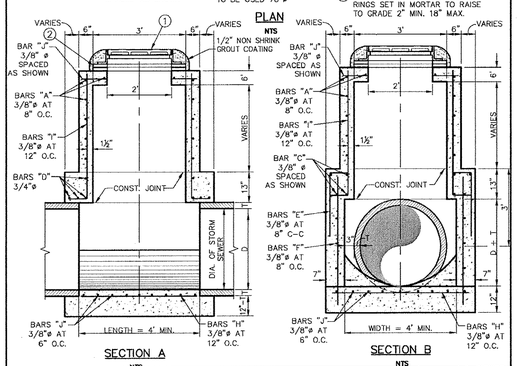


① CAST IRON MANHOLE FRAME AND COVER SUITABLE FOR HEAVY TRAFFIC. MANHOLE RIM TO BE SET FLUSH WITH PAVEMENT OR 1" TO 4" ABOVE GRADE IN NON-PAVED AREAS

NOTE : MAXIMUM PIPE SIZE TO BE USED 78"ø

② USE PRECAST CONCRETE GRADE RINGS SET IN MORTAR TO RAISE TO GRADE 2" MIN. 18" MAX.

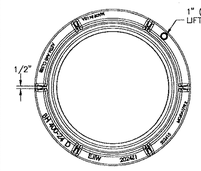
PLAN
NTS



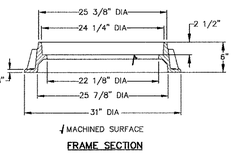
SECTION A
NTS

SECTION B
NTS

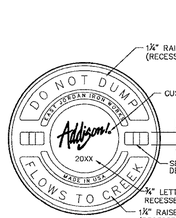
PUBLIC WORKS DEPARTMENT | TYPE "B" STORM SEWER MANHOLE (FOR 33" TO 78" RCP) | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-007



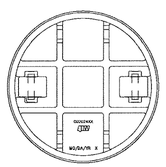
FRAME PLAN



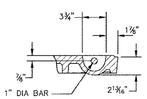
FRAME SECTION



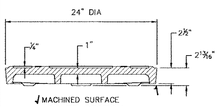
COVER



BOTTOM VIEW OF COVER



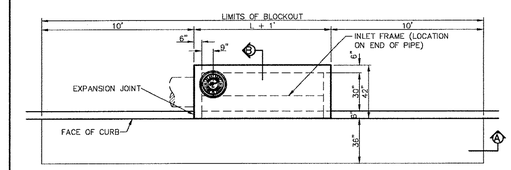
PICKBAR DETAIL



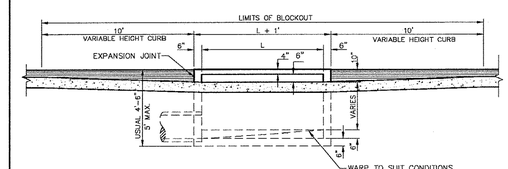
COVER SECTION

NOTE:
FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS FRAME PRODUCT #00202415 AND COVER PRODUCT #NCR08-0060A OR APPROVED EQUAL AND SHALL BE GRAY CAST IRON CONFORMING TO ASTM A48-CL35B.

PUBLIC WORKS DEPARTMENT | STORM MANHOLE FRAME & COVER | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-008



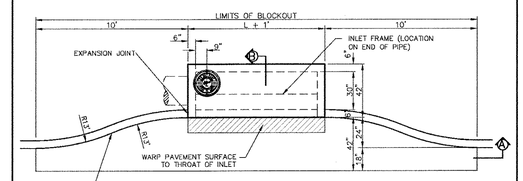
PLAN–STANDARD INLET
NTS



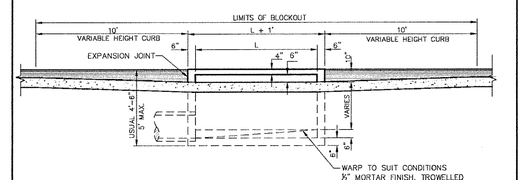
SECTION A
NTS

NOTE:
1. **PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER OR BOTTOM.**
2. **#3 BAR 18" O.C.E.W. IN BLOCK OUT DRILLED INTO EXISTING CONCRETE.**
3. **BACKFILL AROUND INLET SHALL BE FLOWABLE BACKFILL PER NCTCOG 504.2.3.4**

PUBLIC WORKS DEPARTMENT | STANDARD CURB INLET | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-010



PLAN–STANDARD INLET
NTS



SECTION A
NTS

NOTE:
1. **PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER OR BOTTOM.**
2. **#3 BAR 18" O.C.E.W. IN BLOCK OUT DRILLED INTO EXISTING CONCRETE.**
3. **BACKFILL AROUND INLET SHALL BE FLOWABLE BACKFILL PER NCTCOG 504.2.3.4.**

PUBLIC WORKS DEPARTMENT | RECESSED CURB INLET | STANDARD CONSTRUCTION DETAILS STORM DRAINAGE | DATE: AUGUST, 2010 | REV DATE: – | SHEET: SD-011

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, Texas 75251-1808 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

DAVID E. MEYERS 81512 REGISTERED PROFESSIONAL ENGINEER 10/11/2011

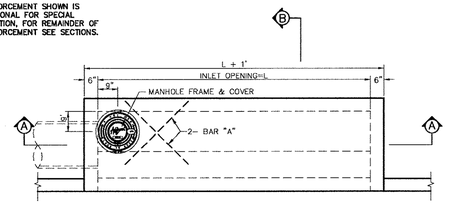
Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

STORM WATER DETAILS

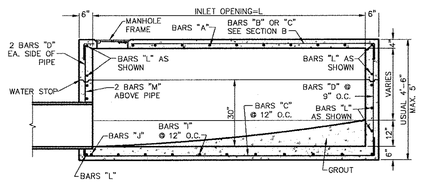
DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C13

NOTE:
REINFORCEMENT SHOWN IS ADDITIONAL FOR SPECIAL CONDITION. FOR REMAINDER OF REINFORCEMENT SEE SECTIONS.

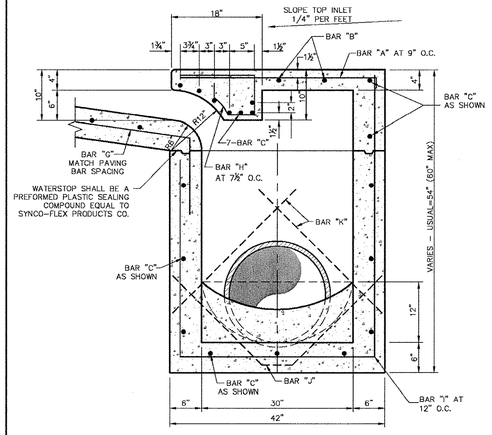


PLAN–STANDARD INLET
NTS



SECTION A
NTS

Addison! PUBLIC WORKS DEPARTMENT	STANDARD CURB INLET 4, 6, 8 & 10 FOOT INLETS
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-012	



SECTION "B"
NTS

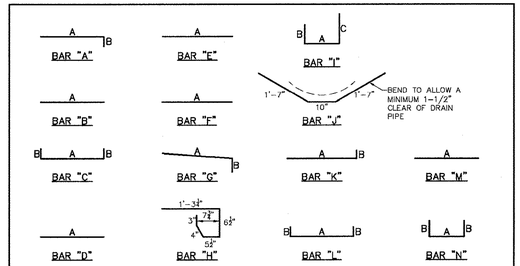
Addison! PUBLIC WORKS DEPARTMENT	TYPICAL SECTION "B" STANDARD & RECESSED CURB INLETS (4, 6, 8 & 10 FOOT INLETS)
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-013	

REINFORCING STEEL SCHEDULE
DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLET

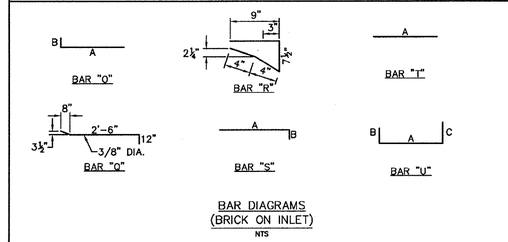
INLET LENGTH	BAR TYPE	BAR DIA. (1/8")	NO REQ'D	BAR DIMENSIONS A	B	C
4'	A	3	6	3'–2"	0'–3"	–
	B	3	2	2'–10"	–	–
	C	4	18	4'–8"	0'–6"	–
	D	4	9	4'–8"	–	–
	G	3	4	2'–0"	1'–3"	–
	H	3	7	*	*	*
	I	4	3	3'–2"	3'–2"	4'–8"
	J	5	1	*	*	*
	K	5	2	3'–2"	0'–6"	–
	L	4	11	3'–2"	0'–6"	–
	M	4	2	3'–0"**	–	–
6'	A	3	9	3'–2"	0'–3"	–
	B	3	2	4'–10"	–	–
	C	4	18	6'–8"	0'–6"	–
	D	4	9	4'–8"	–	–
	G	3	6	2'–0"	1'–3"	–
	H	3	11	*	*	*
	I	4	5	3'–2"	3'–2"	4'–8"
	J	5	1	*	*	*
	K	5	2	3'–2"	0'–6"	–
	L	4	11	3'–2"	0'–6"	–
	M	4	2	3'–0"**	–	–
8'	A	3	12	3'–2"	0'–3"	–
	B	3	2	6'–10"	–	–
	C	4	18	6'–8"	0'–6"	–
	D	4	9	4'–8"	–	–
	G	3	7	2'–0"	1'–3"	–
	H	3	14	*	*	*
	I	4	7	3'–2"	3'–2"	4'–8"
	J	5	1	*	*	*
	K	5	2	3'–2"	0'–6"	–
	L	4	11	3'–2"	0'–6"	–
	M	4	2	3'–0"**	–	–
10'	A	3	15	3'–2"	0'–3"	–
	B	3	2	8'–10"	–	–
	C	4	18	10'–8"	0'–6"	–
	D	4	9	4'–8"	–	–
	G	3	9	2'–0"	1'–3"	–
	H	3	17	*	*	*
	I	4	9	3'–2"	3'–2"	4'–8"
	J	5	1	*	*	*
	K	5	2	3'–2"	0'–6"	–
	L	4	11	3'–2"	0'–6"	–
	M	4	2	3'–0"**	–	–

* SEE DIAGRAM FOR DIMENSIONS
** FIELD CUT AS REQUIRED TO ACCOMMODATE DRAIN PIPE

Addison! PUBLIC WORKS DEPARTMENT	REINFORCING STEEL SCHEDULE 4, 6, 8 & 10 FOOT INLETS
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-014	



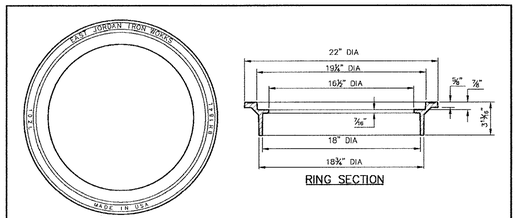
REINFORCING BAR DIAGRAMS
NTS



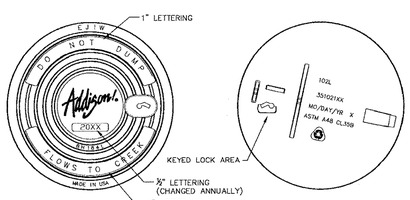
BAR DIAGRAMS (BRICK ON INLET)
NTS

NOTE:
BAR DESIGNATIONS AND DIMENSIONS ARE DIFFERENT FROM STEEL SCHEDULE FOR REGULAR INLETS

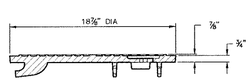
Addison! PUBLIC WORKS DEPARTMENT	REINFORCING BAR DIAGRAMS
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-022	



RING
RING SECTION



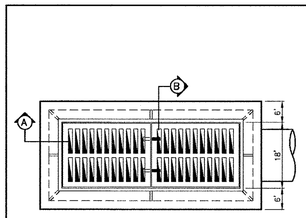
COVER
COVER BOTTOM VIEW



COVER SECTION

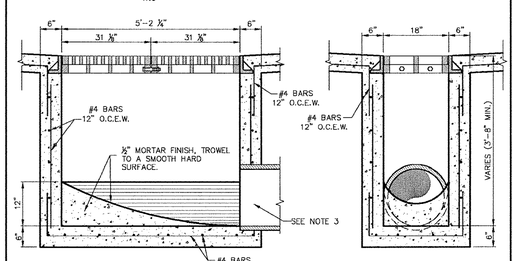
NOTE:
FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS FRAME PRODUCT #3502020O0 AND COVER PRODUCT #NCR08–0060B OR APPROVED EQUAL AND SHALL BE GRAY CAST IRON CONFORMING TO ASTM A48–CL35B.

Addison! PUBLIC WORKS DEPARTMENT	INLET FRAME & COVER
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-024	



PLAN
NTS

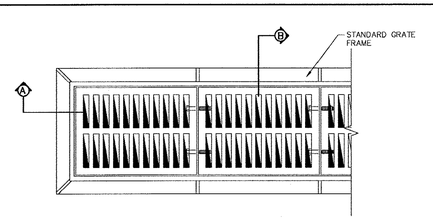
NOTES:
1. ALL LAPS AND EXTENSION OF REINFORCING BARS SHALL BE 36 BAR DIAMETERS UNLESS NOTED OTHERWISE.
2. TACK WELD GRATES IN PLACE.
3. PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER OR BOTTOM.
4. ALL CAST IRON FITTINGS SHALL BE DOMESTIC.
5. ALL FASTENERS SHALL BE GALVANIZED.



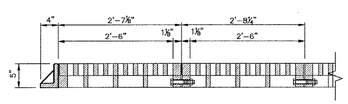
SECTION A
NTS

SECTION B
NTS

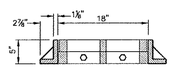
Addison! PUBLIC WORKS DEPARTMENT	TWO GRATE INLET
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-030	



PLAN
NTS



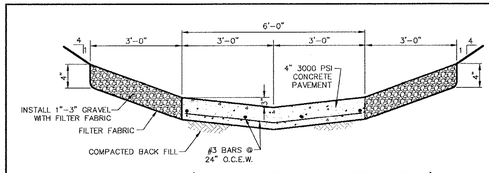
SECTION A
NTS



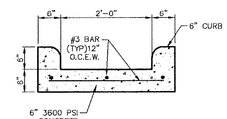
SECTION B
NTS

NOTES:
1. GRATE AND FRAME SHALL BE PATTERN No. 814 AS MANUFACTURED BY BASS AND HAYES FOUNDRY OR APPROVED EQUAL.
2. ALL CAST IRON FITTINGS SHALL BE DOMESTIC.
3. ALL FASTENERS SHALL BE GALVANIZED.

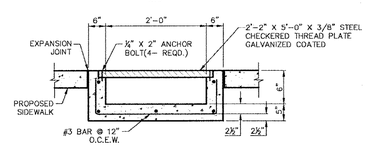
Addison! PUBLIC WORKS DEPARTMENT	GRATE DETAIL
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-034	



CONC. FLUME (CURBS REQUIRED AT CULVERT OUTFALL)* DETENTION POND
NTS



CONC. FLUME IN THE BACK OF LOTS*
NTS



CONC. FLUME WITH PLATE COVER*
NTS

*FOR ALL FLUMES THE MINIMUM SLOPE WILL BE 0.75%

Addison! PUBLIC WORKS DEPARTMENT	STORM RELATED FLUMES
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE	
DATE: AUGUST, 2010	REV DATE: –
SHEET : SD-035	

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1900
Dallas, TX 75251-1505 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

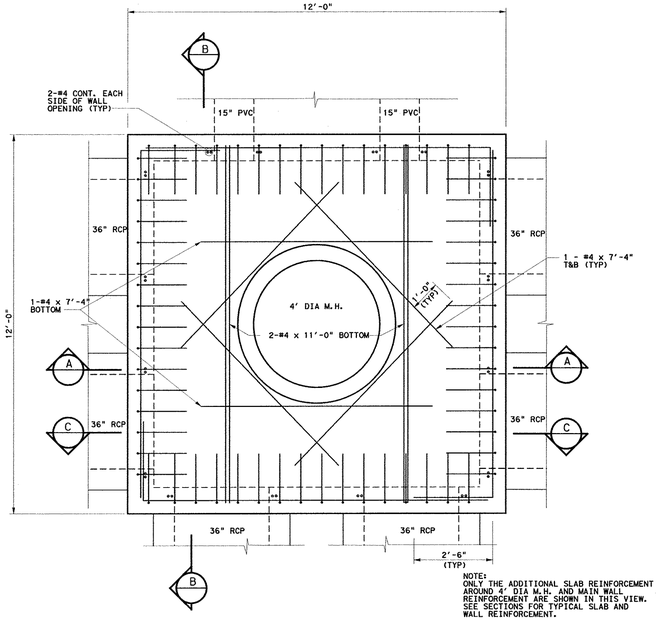
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-11

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

STORM WATER DETAILS

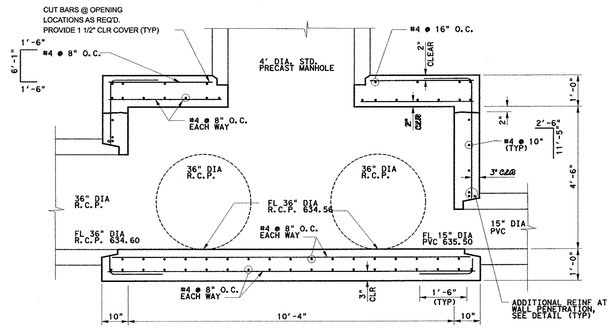
DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C14

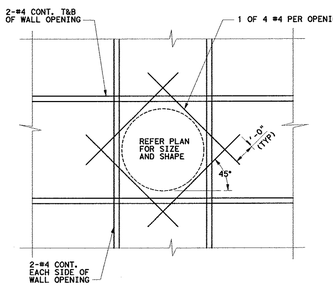


NOTE:
ONLY THE ADDITIONAL SLAB REINFORCEMENT AROUND 4' DIA M.H. AND MAIN WALL REINFORCEMENT ARE SHOWN IN THIS VIEW. SEE SECTIONS FOR TYPICAL SLAB AND WALL REINFORCEMENT.

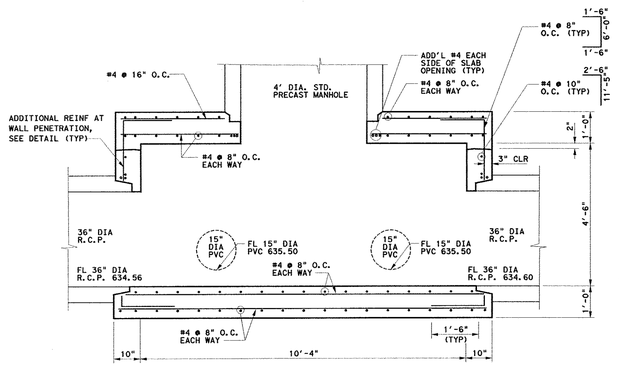
PLAN VIEW
SCALE: ½" = 1'-0"
STA. 1+94.73 LN 'D'
STA. 0+47 LN 'F'



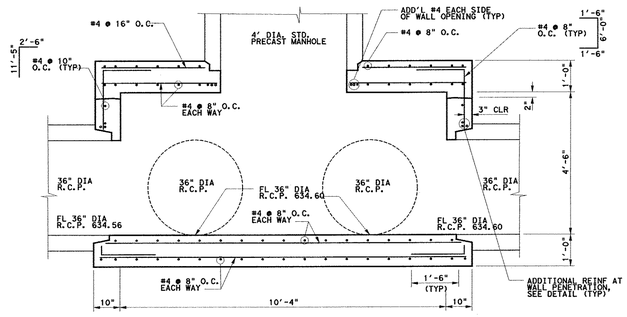
SECTION B-B
SCALE: ½" = 1'-0"
STA. 1+94.73 LN 'D'
STA. 0+47 LN 'F'



DETAILS OF ADDITIONAL REINFORCEMENT AT TYPICAL WALL PENETRATION
SCALE: ½" = 1'-0"



SECTION A-A
SCALE: ½" = 1'-0"
STA. 1+94.73 LN 'D'
STA. 0+47 LN 'F'



SECTION C-C
SCALE: ½" = 1'-0"
STA. 1+94.73 LN 'D'
STA. 0+47 LN 'F'

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 2002 17TH EDITION, HEREIN REFERRED TO AS THE STANDARD SPECIFICATION, AND/OR ADDITIONAL PREVAILING CODES.
2. NOTES HEREIN EXCERPTED FROM THE STANDARD SPECIFICATIONS ARE FOR GENERAL INFORMATION ONLY AND DO NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITIES FOR OBTAINING COPIES OF AND/OR CONFORMING TO THE STANDARD SPECIFICATIONS.
3. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL COORDINATE, VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS, DETAILS AND CONDITIONS BEFORE STARTING THE WORK.
4. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR SHORING AND BRACING OF ALL WORK INCLUDING PROTECTION OF EXISTING STRUCTURES AND UTILITIES.
5. ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO INSTALLATION, SHALL HAVE PREVIOUS APPROVAL FROM THE GOVERNING BUILDING DEPARTMENT AND SHALL HAVE EITHER A CURRENT INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS RESEARCH REPORT OR A NATIONAL EVALUATION REPORT.
6. BACKFILL SHALL BE A COMPACTED EXISTING SITE SOIL OR ROCK AS APPROVED BY THE GEOTECHNICAL ENGINEER WITH MAXIMUM EQUIVALENT FLUID PRESSURE OF 80 PSF/FT DEPTH. UPPER 18" OF BACKFILL SHALL BE SEALED WITH A COMPACTED COHESIVE SOIL (PI > 25).
7. BACKFILL SHALL BE PLACED AS STANDARD COMPACTED EARTHFILL, PLACED IN 8 INCH THICK LOOSE LIFTS AND COMPACTED AT 92% (MINIMUM) OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT. CARE SHOULD BE TAKEN TO ASSURE ADEQUATE COMPACTION ADJACENT TO WALL WITH MANUAL COMPACTION EQUIPMENT (NO HEAVY EQUIPMENT). NO VEGETATION OR ROCKS GREATER THAN 3 INCHES IN ANY DIMENSION SHALL BE ALLOWED IN THE FILL.
8. SUB-GRADE PREPARATION AND BACKFILL MATERIALS AND COMPACTION TO BE UNDER THE SUPERVISION OF THE GEOTECHNICAL FIRM, REED ENGINEERING GROUP, LTD. A MINIMUM ALLOWABLE BEARING PRESSURE OF 2000 PSF SHALL BE OBTAINED.
9. CONCRETE FOR WALLS AND SLABS:
   f'c = 4000 PSI @ 28 DAYS, NORMAL WEIGHT
   COARSE AGGREGATE SIZE NO. 57, 1" MAXIMUM
   AIR-ENTRAINMENT 2-1/2% BY VOLUME
   WATER-CEMENT RATIO 0.48
   CEMENT CONTENT 470 LBS PER CUBIC YARD MINIMUM
   SLUMP 4" ± 1" WITH WATER REDUCING ADMIXTURE
   FLY ASH - 20-25% MAY BE ADDED
10. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
11. ALL REINFORCING BARS SPLICE SHALL BE 40 BAR DIA. (18" MINIMUM) UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
12. UNLESS OTHERWISE NOTED (UNO), ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" - A.C.I. 315.
13. ALL REINFORCING BAR HOOKS SHOWN ON DRAWINGS SHALL BE A.C.I. STANDARD 90 DEGREE HOOKS, UNO.
14. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH ¾" X 45 DEGREE CHAMFER, UNO.
15. EXPANSION JOINT MATERIAL SHALL CONFORM TO ASTM D-1751 FOR NON-EXTRUDING AND RESILIENT BITUMINOUS TYPES.
16. REFER TO GEOTECHNICAL ENGINEER FOR RECOMMENDED TECHNICAL PROVISIONS FOR THE CONSTRUCTION PRACTICE IN SHORING AND SLOPING OF EXCAVATIONS AND REQUIRED COMPACTION REQUIREMENTS. GEOTECHNICAL ENGINEER SHALL OBSERVE FOOTING/SLAB SUBGRADE BEFORE CONCRETE PLACEMENT.
17. TIME OF OPEN EXCAVATION FOR WALL CONSTRUCTION SHALL BE LIMITED PER GEOTECHNICAL ENGINEER.
18. CLEAR SPACING BETWEEN REINFORCING BARS SHALL BE A MINIMUM OF 1½BAR DIAMETERS, OR 1½", OR 1 TIMES THE MAXIMUM AGGREGATE SIZE, WHICHEVER IS GREATER.
19. REINFORCING SHALL HAVE THE FOLLOWING MINIMUM PROTECTIVE COVER OF CONCRETE, UNO:
    A) 3" - CONCRETE CAST AGAINST GROUND
    B) 2" - FORMED CONCRETE SURFACES IN CONTACT WITH GROUND
    C) 2" - FORMED CONCRETE SURFACES EXPOSED TO WEATHER
    D) 2" - TOP REINFORCEMENT IN DECK SLABS
20. NO OPENINGS FOR PIPES, CONDUIT, ETC. SHALL BE MADE IN CONCRETE WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER UNLESS SHOWN ON THE DRAWINGS.

Kimley-Horn and Associates, Inc.
6700 Park Central Drive, Suite 1600
Plano, TX 75024-8185 972-770-1300

No.	Revision	Date

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-7-2011

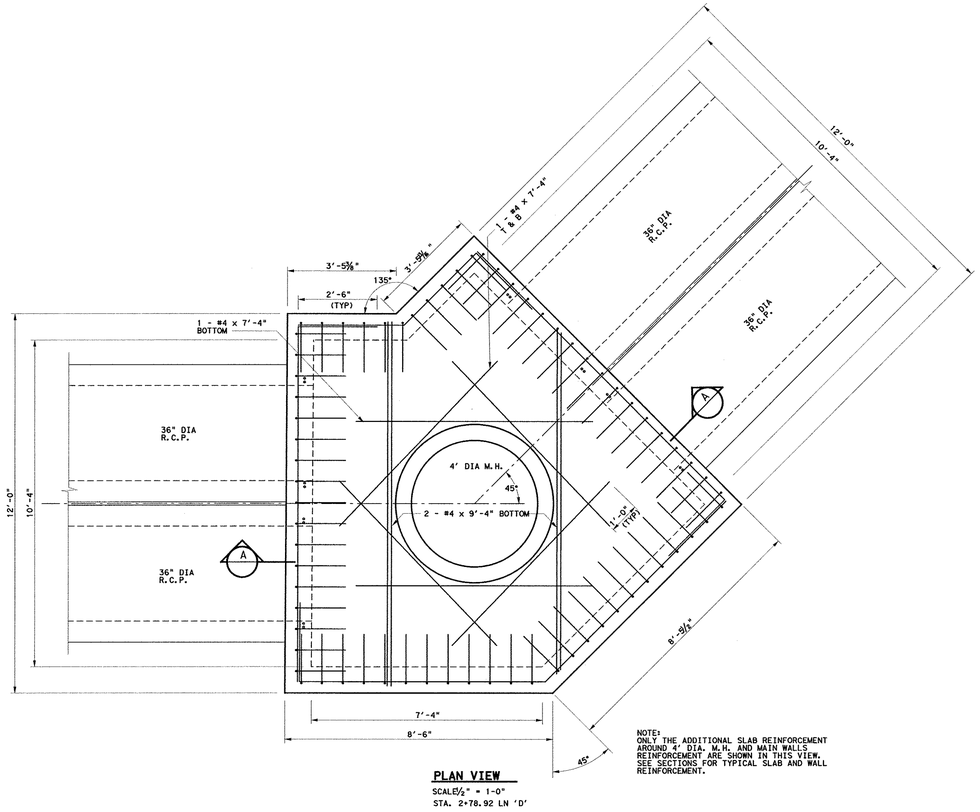
Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

JUNCTION STRUCTURE DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

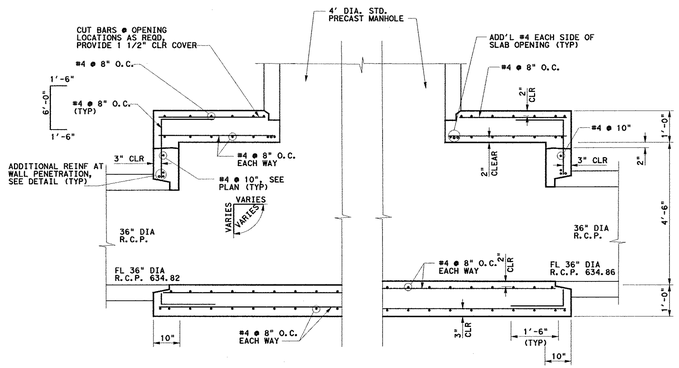
SHEET
C15

NOTE: SEE SHEET C15 FOR GENERAL NOTES.

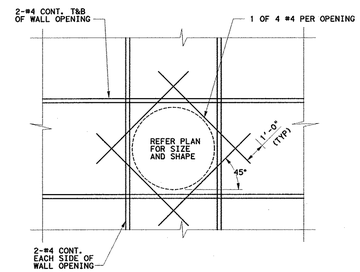


NOTE:
ONLY THE ADDITIONAL SLAB REINFORCEMENT AROUND 4' DIA. M.H. AND MAIN WALLS REINFORCEMENT ARE SHOWN IN THIS VIEW. SEE SECTIONS FOR TYPICAL SLAB AND WALL REINFORCEMENT.

PLAN VIEW
SCALE 1/2" = 1'-0"
STA. 2+78.92 LN 'D'



SECTION A-A
SCALE 1/2" = 1'-0"
STA. 2+78.92 LN 'D'



DETAIL OF ADDITIONAL REINFORCEMENT AT TYPICAL WALL PENETRATION
N.T.S.

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-1518 972-770-1300

No.	Revision	Date

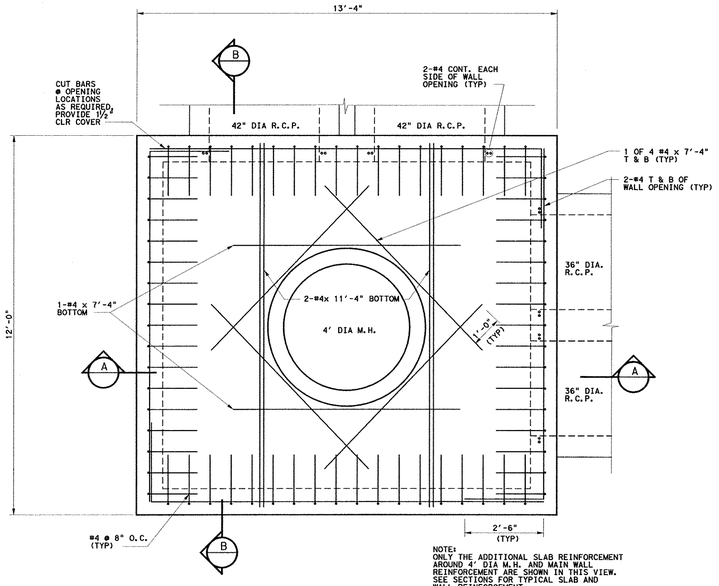
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

JUNCTION STRUCTURE DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C16



NOTE:
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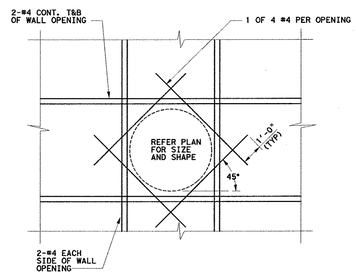
PLAN VIEW

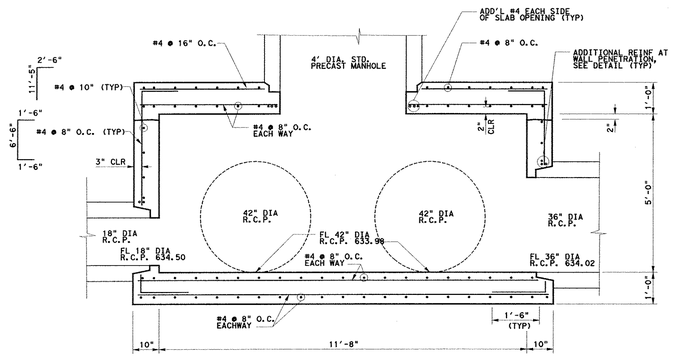
SCALE 1/2" = 1'-0"
STA. 0+00 LN 'D'
STA. 3+67.43 LN 'E'



DETAIL OF ADDITIONAL REINFORCEMENT AT TYPICAL WALL PENETRATION

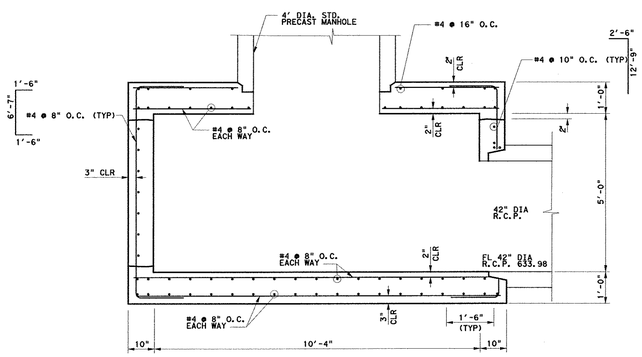
N.T.S.

NOTE: SEE SHEET C15 FOR GENERAL NOTES.



SECTION A-A

SCALE 1/2" = 1'-0"
STA. 0+00 LN 'D'
STA. 3+67.43 LN 'E'



SECTION B-B

SCALE 1/2" = 1'-0"
STA. 0+00 LN 'D'
STA. 3+67.43 LN 'E'

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
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Firm No. 928

No.	Revision	Date

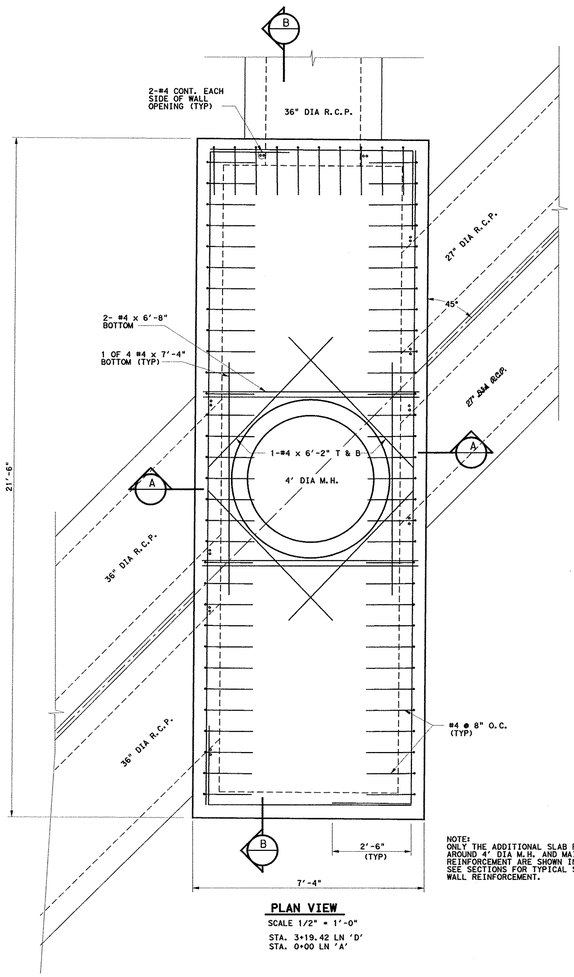
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

JUNCTION STRUCTURE DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C17



NOTE:
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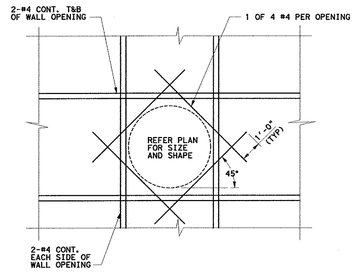
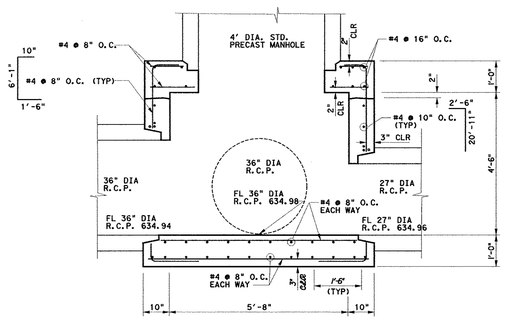
PLAN VIEW
SCALE 1/2" = 1'-0"
STA. 3+19.42 LN 'D'
STA. 0+00 LN 'A'

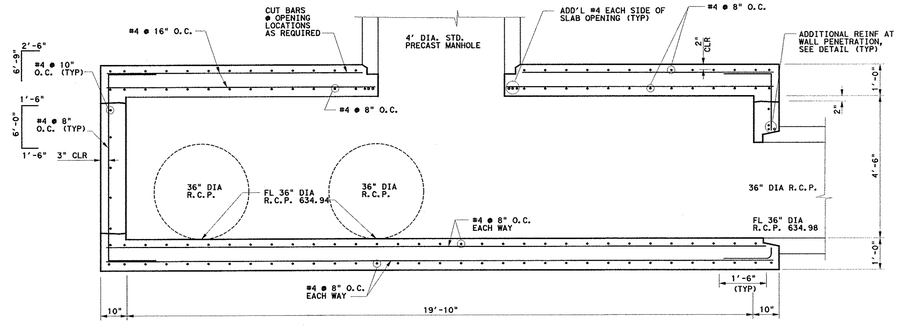


DETAIL OF ADDITIONAL REINFORCEMENT AT TYPICAL WALL PENETRATION
N.T.S.

NOTE: SEE SHEET C15 FOR GENERAL NOTES.



SECTION A-A
SCALE 1/2" = 1'-0"
STA. 3+19.42 LN 'D'
STA. 0+00 LN 'A'



SECTION B-B
SCALE 1/2" = 1'-0"
STA. 3+19.42 LN 'D'
STA. 0+00 LN 'A'

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1600
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Texas Reg. No. 928

No.	Revision	Date

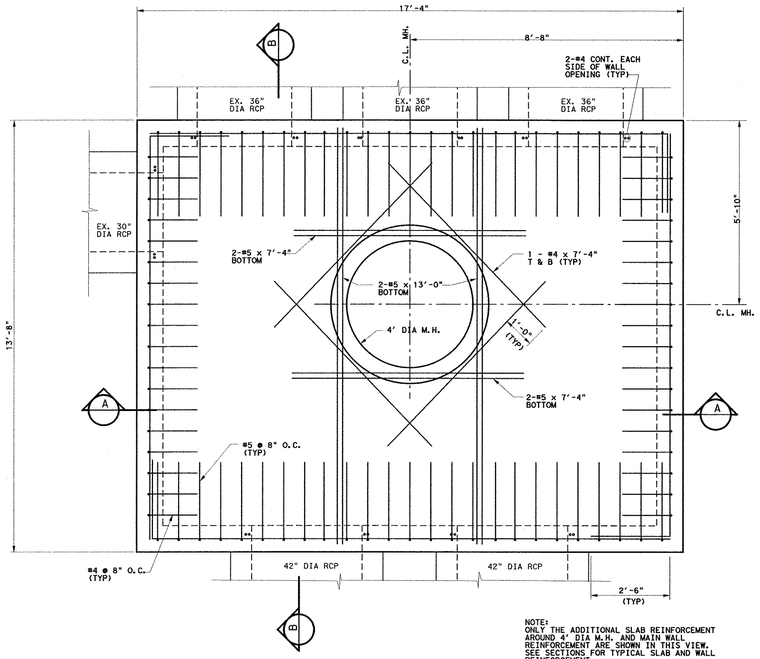
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
6/11/24

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

JUNCTION STRUCTURE DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C18



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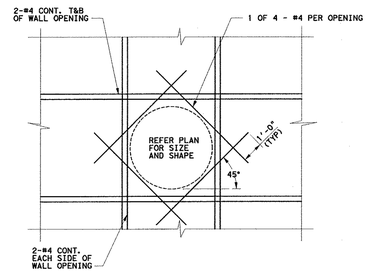
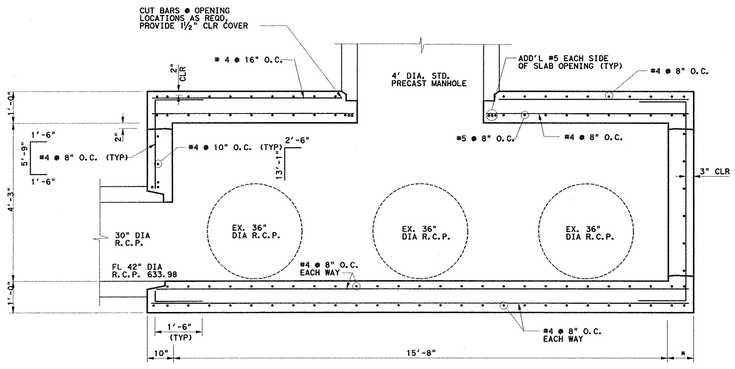
PLAN VIEW
SCALE 1/2" = 1'-0"
STA. 0+00 LN 'E'

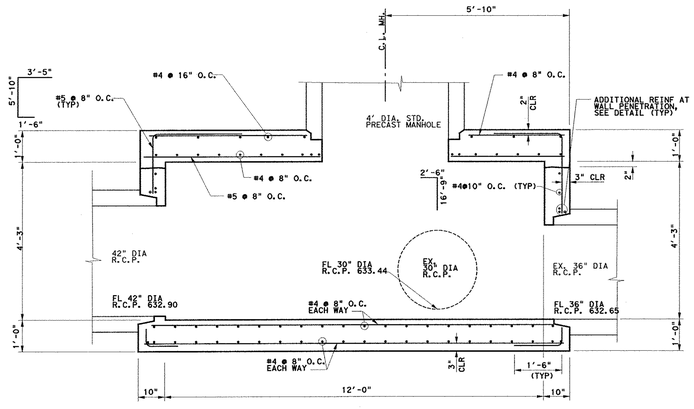


DETAIL OF ADDITIONAL REINFORCEMENT AT TYPICAL WALL PENETRATION
N.T.S.

NOTE: SEE SHEET C15 FOR GENERAL NOTES.



SECTION A-A
SCALE 1/2" = 1'-0"
STA. 0+00 LN 'E'



SECTION B-B
SCALE 1/2" = 1'-0"
STA. 0+00 LN 'E'

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-816 972-770-5600
Texas, 76102

No.	Revision	Date

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
12-11-11

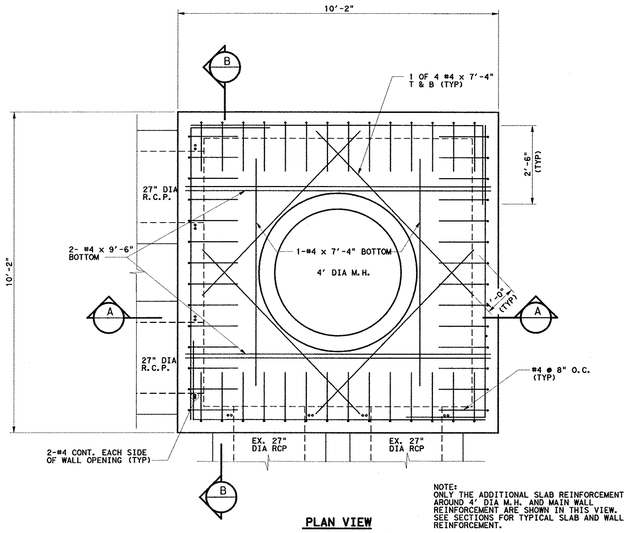
Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

JUNCTION STRUCTURE DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C19

NOTE: SEE SHEET C15 FOR GENERAL NOTES.



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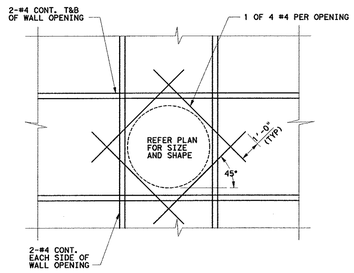
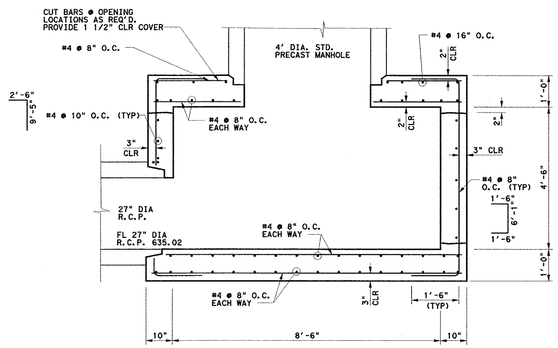
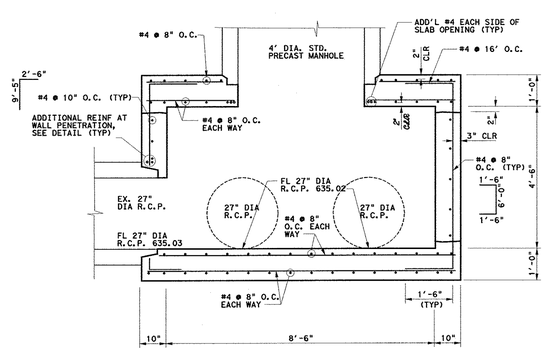
PLAN VIEW
SCALE 1/2" = 1'-0"
STA. 3+44.34 LN 'D'



DETAILS OF ADDITIONAL REINFORCEMENT AT TYPICAL WALL PENETRATION
N.T.S.



SECTION A-A
SCALE 1/2" = 1'-0"
STA. 3+44.34 LN 'D'



SECTION B-B
SCALE 1/2" = 1'-0"
STA. 3+44.34 LN 'D'

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-1516 972-770-1300
Firm No. 928

No.	Revision	Date

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

JUNCTION STRUCTURE DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
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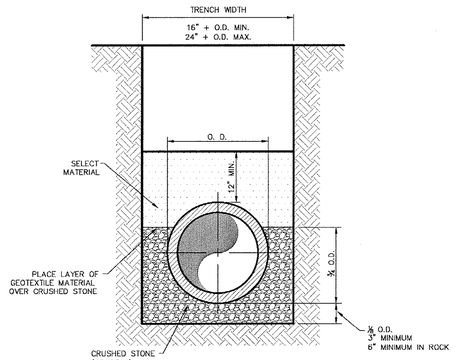
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C20

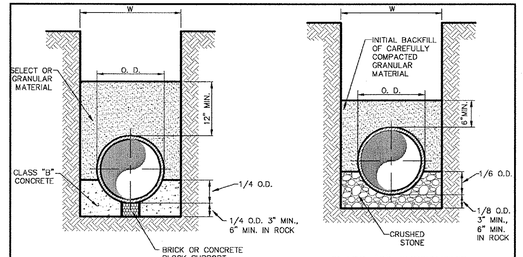


CLASS "B+" EMBEDMENT

CRUSHED STONE SHALL BE 3/4", PASSING # 4 SIEVE

TYPICAL P.V.C. WATER MAIN
EMBEDMENT

Addison! PUBLIC WORKS DEPARTMENT	P.V.C. WATER MAIN EMBEDMENT	STANDARD CONSTRUCTION DETAILS WATER	DATE: AUGUST, 2010 / REV DATE: – / SHEET : SD-W01



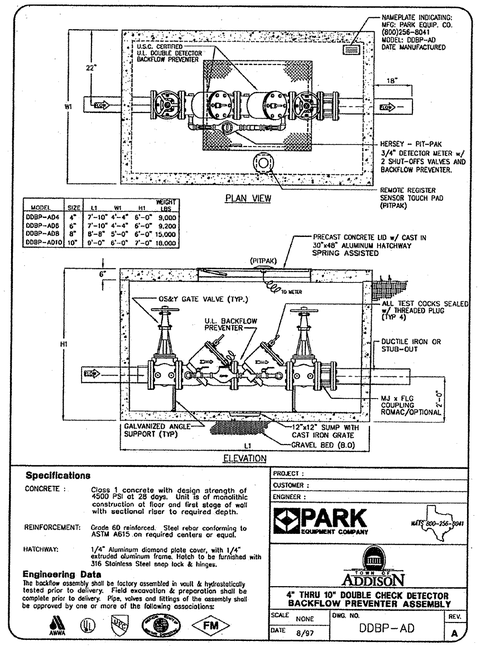
W = 16" + O.D. MIN.
24" + O.D. MAX.

TABLE OF QUANTITIES OF MATERIAL IN CUBIC YARDS PER 100 LINEAR FEET

INSIDE DIAMETER OF PIPE	OUTSIDE DIAMETER OF PIPE	TRENCH WIDTH IN W.	TRENCH WIDTH IN FEET	CONCRETE CLASS "A" EMBED.	CONCRETE CLASS "G" EMBED.	CRUSHED STONE CLASS "C" EMBED.
REINFORCED CONCRETE CYLINDER PIPE						
14"	17.25"	34"	2.83	6.37	10.59	4.48
16"	19.38"	36"	3.00	7.49	12.26	4.94
18"	21.78"	38"	3.17	8.77	14.33	5.43
20"	23.78"	40"	3.33	10.00	16.14	5.91
24"	27.75"	44"	3.67	12.66	20.02	7.46

NOTE :
ALL COMPACTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND / OR SPECIAL PROVISIONS.

Addison! PUBLIC WORKS DEPARTMENT	RCCP WATER MAIN EMBEDMENT	STANDARD CONSTRUCTION DETAILS WATER	DATE: AUGUST, 2010 / REV DATE: – / SHEET : SD-W02



MODEL	SIZE	L1	W1	H1	WEIGHT LBS.
DDBP-AD4	4"	7'-10"	4'-4"	6'-0"	9,000
DDBP-AD6	6"	7'-10"	4'-4"	6'-0"	9,200
DDBP-AD8	8"	8'-8"	5'-0"	6'-0"	15,000
DDBP-AD10	10"	9'-0"	6'-0"	7'-0"	18,000

Specifications

CONCRETE : Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

HATCHWAY: 1/4" Aluminum diamond plate cover, with 1/4" extruded aluminum frame. Hatch to be furnished with 316 Stainless Steel snap lock & hinges.

Engineering Data

The backflow assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

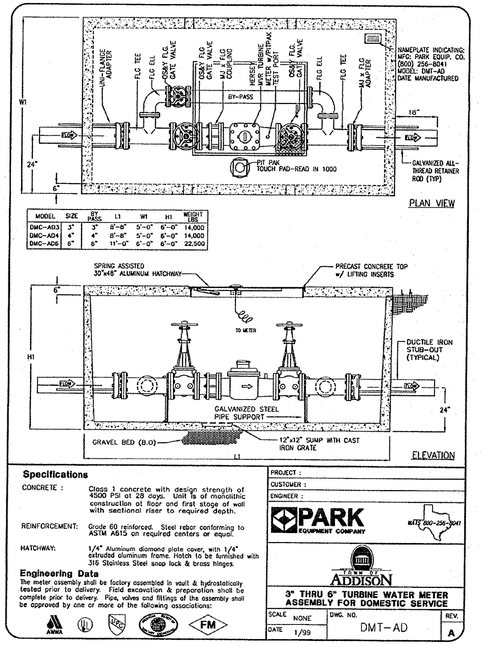
AWWA UL FM

PROJECT :
CUSTOMER :
ENGINEER :
PARK EQUIPMENT COMPANY
(800) 256-8041

CITY OF ADDISON

4" THRU 10" DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY

SCALE	DWG. NO.	REV.
NONE	DDBP-AD	A
DATE 8/97		



MODEL	SIZE	BY PASS	L1	W1	H1	WEIGHT LBS.
DMC-AG3	3"	3"	8'-8"	5'-0"	6'-0"	14,000
DMC-AD4	4"	4"	8'-8"	5'-0"	6'-0"	14,800
DMC-AD6	6"	6"	11'-0"	6'-0"	6'-0"	22,500

Specifications

CONCRETE : Class 3 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

HATCHWAY: 1/4" Aluminum diamond plate cover, with 1/4" extruded aluminum frame. Hatch to be furnished with 316 Stainless Steel snap lock & brass hinges.

Engineering Data

The meter assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

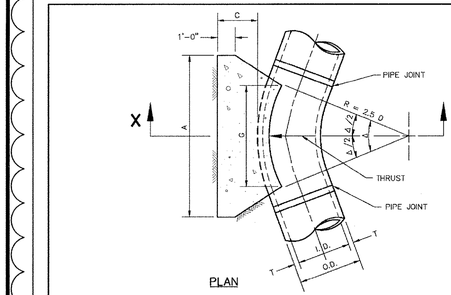
AWWA UL FM

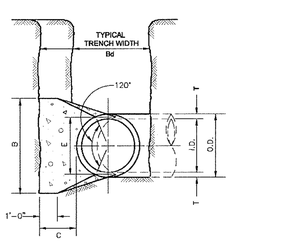
PROJECT :
CUSTOMER :
ENGINEER :
PARK EQUIPMENT COMPANY
(800) 256-8041

CITY OF ADDISON

3" THRU 6" TURBINE WATER METER ASSEMBLY FOR DOMESTIC SERVICE

SCALE	DWG. NO.	REV.
NONE	DMT-AD	A
DATE 1/99		





Addison! PUBLIC WORKS DEPARTMENT	HORIZONTAL THRUST BLOCK AT PIPE BEND	STANDARD CONSTRUCTION DETAILS WATER	DATE: AUGUST, 2010 / REV DATE: – / SHEET : SD-W04

I.D. (IN.)	T (IN.)	Δ = 11.25° (FT.)	Δ = 22.50° (FT.)	E (FT.)
4,6,8	0.4	1.5	1.5	0.9
10,12	0.5	1.5	1.5	1.2
16,18	0.6	1.5	1.5	1.6
20	0.7	1.5	1.5	1.8
24	0.9	1.5	1.5	2.1
30	2.9	1.5	1.9	2.6
36	4.5	1.5	2.3	3.3
42	5.0	1.8	2.6	3.8
48	5.5	2.0	3.0	4.3
54	6.0	2.3	3.4	4.8
60	6.5	2.5	3.8	5.3
66	6.8	2.8	4.1	5.7
72	7.5	3.0	4.5	6.3
78	7.5	3.3	4.9	6.7
84	8.0	3.5	5.3	7.2
90	8.5	3.8	5.6	7.7
96	9.0	4.0	6.0	8.2

I.D. (IN.)	Δ = 11.25°						Δ = 22.50°					
	C (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK VOL. (C.Y.)		C (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK VOL. (C.Y.)
4,6,8	0.4	1.0	1.0	1.5	0.1	1.0	0.1	4,6,8	0.8	2.0	1.5	1.5	0.1	1.0	0.1
10,12	0.6	2.2	1.5	1.5	0.1	1.0	0.1	10,12	1.1	4.4	2.0	2.5	0.3	1.5	0.1
16,18	0.8	5.0	2.0	2.5	0.3	1.5	0.2	16,18	1.6	9.9	3.0	3.5	0.6	2.0	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	0.3	20	1.8	12.3	3.5	3.5	0.7	2.0	0.4
24	1.1	8.9	3.0	3.5	0.5	1.5	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	0.5
30	1.4	10.4	3.0	3.5	0.6	2.0	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	0.5	36	3.3	29.8	5.5	5.5	2.3	4.0	1.3
42	1.9	20.4	4.5	5.0	1.5	2.5	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	2.1
48	2.2	26.6	4.5	6.0	2.0	2.5	1.1	48	4.4	52.9	8.0	7.0	5.7	4.5	2.8
54	2.5	33.7	6.0	6.0	3.0	3.0	1.4	54	4.9	67.0	9.0	8.0	8.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	1.8	60	5.5	82.7	9.5	9.0	10.6	6.0	5.3
66	3.0	50.3	6.5	8.0	5.1	3.5	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	3.3	72	6.6	119.1	11.0	11.0	17.6	7.5	9.1
78	3.6	70.2	8.0	9.0	8.1	4.0	3.9	78	7.1	139.8	12.0	12.0	22.5	8.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.5	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	14.8
90	4.1	93.5	8.5	10.0	12.2	5.0	6.3	90	8.2	186.1	14.0	13.5	33.7	9.5	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	7.4	96	8.7	211.7	15.0	14.5	41.2	10.0	21.8

TABLES OF DIMENSIONS AND QUANTITIES

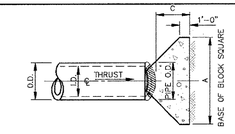
Addison! PUBLIC WORKS DEPARTMENT	HORIZONTAL THRUST BLOCK DIMENSIONS & QUANTITIES	STANDARD CONSTRUCTION DETAILS WATER	DATE: AUGUST, 2010 / REV DATE: – / SHEET : SD-W05

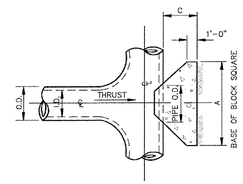
I.D. (IN.)	Δ = 30°							Δ = 45°						
	C (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)	C (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)
4,6,8	1.0	2.6	2.0	1.5	0.2	1.0	1.5	0.1	4,6,8	1.5	3.9	2.0	0.2	1.5	1.5	0.1
10,12	1.5	5.9	2.5	2.5	0.3	2.0	1.5	0.2	10,12	2.2	8.7	3.5	0.5	2.0	2.5	0.3
16,18	2.2	13.2	3.5	4.0	0.8	2.5	3.0	0.4	16,18	3.2	19.5	4.5	1.2	3.0	3.5	0.6
20	2.4	16.3	4.5	4.0	1.0	3.0	3.0	0.5	20	3.6	24.1	5.5	1.5	3.5	3.5	0.7
24	2.9	23.4	6.0	4.0	1.4	3.5	3.5	0.7	24	4.3	34.6	8.0	2.3	4.5	4.0	1.1
30	3.6	27.5	6.5	5.0	1.9	3.5	4.0	0.9	30	5.4	40.6	8.5	3.2	5.5	4.0	1.6
36	4.4	39.5	7.0	6.0	3.4	4.5	4.5	1.6	36	6.5	58.5	10.0	5.3	6.5	4.5	2.6
42	5.1	53.8	8.0	7.0	5.1	5.5	5.0	2.5	42	7.5	79.6	11.5	8.1	8.0	5.0	4.2
48	5.8	70.3	9.0	8.0	7.4	6.0	6.0	3.7	48	8.6	104.0	13.0	11.9	9.0	6.0	6.3
54	6.5	89.0	10.0	9.0	10.3	7.0	6.5	5.3	54	9.7	131.5	15.0	17.1	10.5	6.5	8.9
60	7.3	110.0	11.0	10.0	13.9	7.5	7.5	7.3	60	10.7	162.4	16.5	23.1	11.0	7.5	12.0
66	8.0	132.9	12.5	11.0	18.9	8.5	8.0	9.6	66	11.8	196.5	18.0	31.1	12.0	8.5	16.2
72	8.7	158.2	13.5	12.0	24.0	9.0	9.0	12.3	72	12.9	233.8	19.5	39.8	14.0	8.5	20.7
78	9.4	185.6	14.5	13.0	30.0	10.0	9.5	15.6	78	13.9	274.5	21.5	49.8	14.5	9.5	25.9
84	10.1	215.3	15.5	14.0	37.1	10.5	10.5	19.5	84	15.0	318.4	23.0	61.2	15.5	10.5	32.6
90	10.9	247.1	16.5	15.0	45.0	11.5	11.0	23.9	90	16.1	365.5	24.5	74.5	17.5	10.5	39.6
96	11.6	281.2	18.0	16.0	55.5	12.5	11.5	28.9	96	17.1	415.6	26.0	89.5	18.5	11.5	48.5

I.D. (IN.)	Δ = 67.50°							Δ = 90°						
	C (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)	C (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)
4,6,8	2.1	5.6	3.0	2.0	0.3	2.0	1.5	0.2	4,6,8	2.7	7.1	5.0	1.5	0.4	2.0	2.0	0.2
10,12	3.1	12.6	5.5	2.5	0.8	3.5	2.0	0.4	10,12	4.0	16.0	6.5	2.5	1.0	3.5	2.5	0.5
16,18	4.7	28.3	7.5	4.0	1.9	5.5	3.0	0.9	16,18	6.0	36.0	9.0	4.0	2.4	4.5	4.0	1.0
20	5.2	34.9	9.0	4.0	2.3	5.5	3.5	1.2	20	6.6	44.4	10.0	4.5	3.1	6.0	4.0	1.5
24	6.2	50.3	11.5	4.5	3.5	6.5	4.0	1.6	24	7.9	64.0	14.5	4.5	5.0	8.0	4.0	2.1
30	7.8	78.9	12.0	5.0	4.8	7.5	4.0	2.2	30	9.9	75.0	15.0	5.0	6.7	10.0	4.0	3.3
36	9.4	84.9	14.5	6.0	8.2	9.5	4.5	3.8	36	11.9	108.0	18.0	6.0	11.4	12.0	4.5	5.3
42	10.9	115.5	17.0	7.0	12.8	11.0	5.5	6.3	42	13.9	147.0	21.0	7.0	17.8	14.0	5.5	8.7
48	12.5	150.9	19.0	8.0	18.4	13.0	6.0	9.2	48	15.9	192.0	24.0	8.0	26.2	16.0	6.0	12.4
54	14.0	191.0	21.5	9.0	26.0	15.0	6.5	12.9	54	17.9	243.0	27.0	9.0	36.9	18.0	7.0	16.1
60	15.6	235.8	24.0	10.0	35.6	16.0	7.5	17.6	60	19.9	299.8	30.0	10.0	50.3	20.0	7.5	24.0
66	17.1	285.3	26.0	11.0	46.0	18.0	8.0	23.0	66	21.8	362.8	33.0	11.0	66.2	22.0	8.5	32.5
72	18.7	339.5	28.5	12.0	57.8	19.0	9.0	28.4	72	23.8	431.8	36.0	12.0	85.6	24.0	9.0	41.0
78	20.2	398.5	31.0	13.0	75.7	21.0	9.5	37.4	78	25.7	506.7	39.0	13.0	108.2	28.0	10.0	53.2
84	21.8	462.1	33.5	14.0	94.7	22.0	10.5	46.5	84	27.7	587.7	42.0	14.0	134.4	28.0	10.5	64.8
90	23.3	530.5	35.5	15.0	114.4	24.5	11.0	58.2	90	29.0	674.6	45.0	15.0	164.9	30.0	11.5	81.2
96	24.9	603.6	38.0	16.0	138.9	25.5	12.0	70.0	96	31.6	767.5	48.0	16.0	199.0	32.0	12.0	95.1

TABLES OF DIMENSIONS AND QUANTITIES

Addison! PUBLIC WORKS DEPARTMENT	HORIZONTAL THRUST BLOCK DIMENSIONS & QUANTITIES	STANDARD CONSTRUCTION DETAILS WATER	DATE: AUGUST, 2010 / REV DATE: – / SHEET : SD-W06





I.D. (IN.)	THRUST (TONS)	C (FT.)	EARTH A (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK VOL. (C.Y.)
4,6,8	5.1	1.5	2.5	0.3	2.0	0.2
10,12	11.3	1.5	3.5	0.6	2.5	0.3
16,18	25.5	2.0	5.5	1.6	4.0	0.9
20	31.5	2.0	6.0	1.9	4.0	0.9
24	45.2	2.5	7.0	3.1	5.0	1.7
30	53.0	3.0	7.5	4.1	5.5	2.4
36	76.3	4.0	9.0	7.3	6.5	4.2
42	104.0	4.5	10.5	11.0	7.5	6.2
48	136.0	5.0	12.0	15.6	8.5	8.7

I.D. (IN.)	THRUST (TONS)	C (FT.)	EARTH A (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK VOL. (C.Y.)
54	172.0	5.5	13.5	21.4	9.5	11.9
60	212.0	6.0	15.0	28.4	10.5	15.7
66	257.0	6.5	16.5	36.8	11.5	20.5
72	305.0	7.5	17.5	47.2	12.5	27.2
78	358.0	8.0	19.0	58.9	13.5	33.7
84	416.0	8.5	20.5	72.3	14.5	41.2
90	477.0	9.0	22.0	87.7	15.5	49.7
96	543.0	9.5	23.5	104.8	16.5	61.0

TABLES OF DIMENSIONS AND QUANTITIES

Addison! PUBLIC WORKS DEPARTMENT	HORIZONTAL THRUST BLOCK AT TEES & PLUGS	STANDARD CONSTRUCTION DETAILS WATER	DATE: AUGUST, 2010 / REV DATE: – / SHEET : SD-W07

Kimley-Horn and Associates, Inc.
2700 Post Oak Drive, Suite 1600
Houston, TX 77056-5810 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

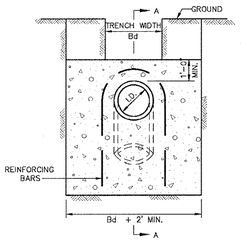
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
11-26-11

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

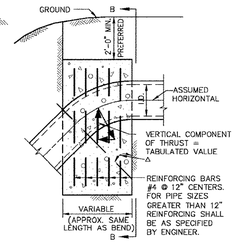
WATER DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C21



ELEVATION "B-B"

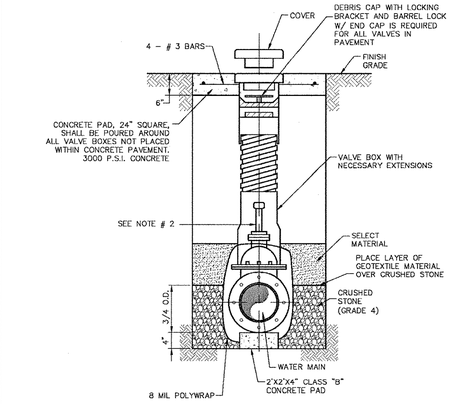


SECTION "A-A"

Δ	11.25°		22.50°		30°		45°		67.50°		90°		Δ
I.D. (IN.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	I.D. (IN.)
4,6,8	1.0	0.5	2.0	1.0	2.5	1.3	3.8	1.8	4.6	2.3	5.0	2.5	4,6,8
10,12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10,12
16,18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16,18
20	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20
24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24
30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30
36	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36
42	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42
48	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48
54	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54
60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60
66	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66
72	59.6	29.8	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	305.0	153.0	72
78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	166.0	358.0	179.0	78
84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84
90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90
96	106.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96

VERTICAL THRUST BLOCK

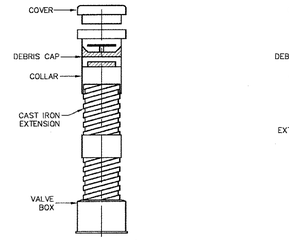
Addison! PUBLIC WORKS DEPARTMENT	VERTICAL THRUST BLOCK AT PIPE BEND	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W08



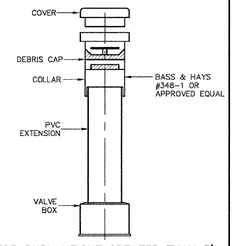
TYPICAL VALVE SETTING & BOX

NOTE:
1. 4"–12" R.S. GATE VALVES SHALL BE IN ACCORDANCE WITH TOWN OF ADDISON WATER SYSTEM REQUIREMENTS.
2. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHERE THE OPERATING NUT IS LOCATED IN EXCESS OF 5 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 5 FEET OF VALVE BOX LID.
3. BLUE "V" (3") CUT INTO FACE OF NEAREST CURB AND POINTING TOWARD THE VALVE.
4. ALL IRON MATERIALS SHALL BE DOMESTIC. (MADE IN USA)
5. CRUSHED STONE SHALL BE 3/4", PASSING #4 SIEVE.

Addison! PUBLIC WORKS DEPARTMENT	VALVE SETTING BOX	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W09



FOR BURY HEIGHT 5' OR LESS

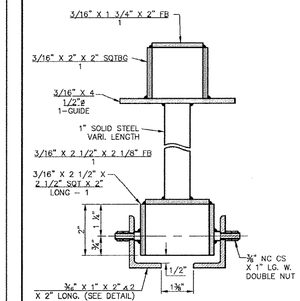


FOR BURY HEIGHT GREATER THAN 5'

NOTE

1. ALL CAST IRON FITTINGS SHALL BE DOMESTIC. (MADE IN U.S.A.)
2. VALVE BOXES SHALL BE PROVIED FOR BURIED VALVES. THESE BOXES SHALL BE THREE (3) PIECE SCREW TYPE CAST IRON OF THE EXTENSION TYPE AND SHALL BE: BASS & HAYS THREE (3) PIECE ADJUSTABLE SCREW TYPE, EAST JORDAN IRON WORKS 8560 W/ 8800 LID, MUELLER NO. H-10360 OR APPROVED EQUAL. THE THREE (3) PIECES SHALL CONSIST OF THE TOP SECTION, BOTTOM SECTION AND COVER.

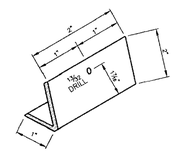
Addison! PUBLIC WORKS DEPARTMENT	VALVE BOX WITH EXTENSION	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W10



NOTE: TO BE USED ON ALL VALVES DEEPER THAN 5'–0".

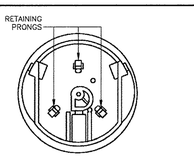
TYPE – B VALVE EXTENSION

SPRING LOCK VALVE EXTENSION

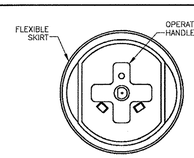


DETAIL

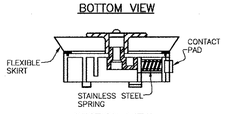
Addison! PUBLIC WORKS DEPARTMENT	VALVE EXTENSION	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W11



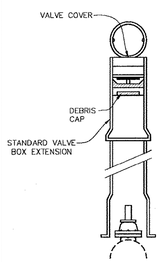
BOTTOM VIEW



TOP VIEW



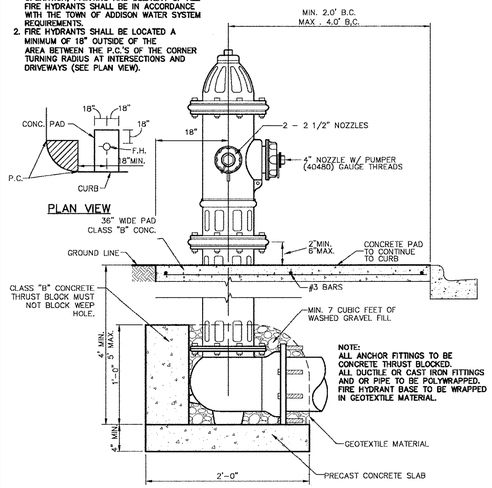
SECTION VIEW



NOTES
1. DEBRIS CAP SHALL BE INSTALLED AS CLOSE AS POSSIBLE UNDER THE CAST IRON COVER WITHOUT INTERFERING WITH COVER OPERATION.
2. FLEXIBLE SKIRT OF THE DEBRIS CAP SHALL BE TRIMMED TO PROVIDE A SMOOTH CONTACT WITH THE INTERIOR DIAMETER OF THE PIPE.
3. THE DEBRIS CAP SHALL BE MANUFACTURED BY SW SERVICES, INC., PHOENIX, ARIZONA MONDEL NO. DC 457 WITH LOCKING BRACKET MODEL NO. DCL04 AND BARREL LOCK.
4. THE CAP SHALL BE CONSTRUCTED TO ALLOW THE DEVICE TO BE SECURED BY A LOCK. THE LOCK (PAD, BARREL, ETC.) SHALL BE SUPPLIED BY THE TOWN OF ADDISON.

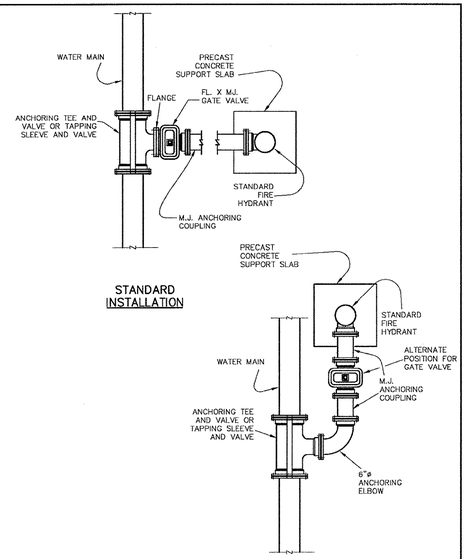
Addison! PUBLIC WORKS DEPARTMENT	DEBRIS CAP	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W12

NOTE:
1. DESIGN, SITE REQUIREMENTS, THE GENERAL OPERATION, PAINTING AND DELIVERY OF ALL FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON WATER SYSTEM REQUIREMENTS.
2. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 18" OUTSIDE OF THE AREA BETWEEN THE P.C.'S OF THE CORNER TURNING RADIUS AT INTERSECTIONS AND DRIVEWAYS (SEE PLAN VIEW).



TYPICAL FIRE HYDRANT INSTALLATION

Addison! PUBLIC WORKS DEPARTMENT	TYPICAL FIRE HYDRANT INSTALLATION	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W16

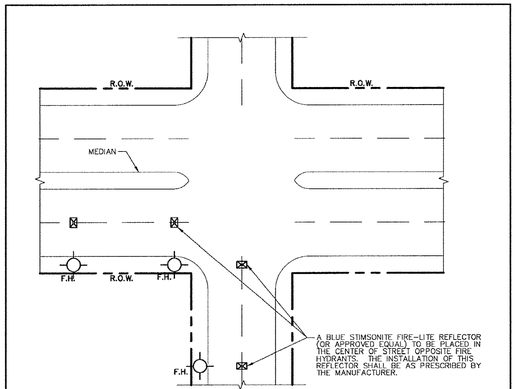


STANDARD INSTALLATION

ALTERNATE INSTALLATION

NOTE:
MEGALUGS SHALL BE USED AT ALL TEES AND BENDS.

Addison! PUBLIC WORKS DEPARTMENT	TYPICAL FIRE HYDRANT INSTALLATION	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W17



NOTE:
FIRE HYDRANT SHALL BE LOCATED OUTSIDE OF RADIUS.

TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION

Addison! PUBLIC WORKS DEPARTMENT	FIRE HYDRANT REFLECTOR INSTALLATION	STANDARD CONSTRUCTION DETAILS WATER		
		DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-W19

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1900
Dallas, TX 75251-1515 972-770-1300
Texas Reg. No. 928

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

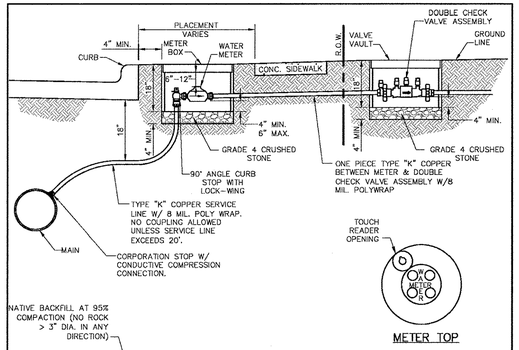
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
10/26/11

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

WATER DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C22



GENERAL INSTALLATION NOTES:

1. WATER METER SHALL BE PLACED IN CENTER OF LOT WITH THE SANITARY SEWER SERVICE TO BE LOCATED 10' DOWNSTREAM.
2. METER AND BOX SHALL BE SET BY THE CONTRACTOR TO ADDISON STANDARDS IN ALL CASES.
3. THE METER BOX SHALL BE SET WITHIN THE R.O.W. OR A DEDICATED UTILITY EASEMENT. IN ALL CASES, THE METER BOX SHALL BE PROTECTED FROM VEHICULAR TRAFFIC.
4. WATER SERVICES SHALL NOT BE CONNECTED TO DEAD END LINES OR FIRE HYDRANT LEADS.
5. ALL MATERIALS SHALL CONFORM TO THE TOWN OF ADDISON WATER SYSTEM REQUIREMENTS.

Type "K" Copper Service Pipe.	Double Strap Bronze Service Saddle with C.C. Threads	East Jordan Iron Works Galvanized Meter Box With Iron Ring & Cover				
		Min. Dia.	Covers & Rigns	Min. Ht.	Min. Can Weight	Min. Total Weight
3/4 Inch	3/4 Inch	18 Inches	12⅝ Inches	18 Inches	13 lbs.	42 lbs.
1 Inch	1 Inch	24 Inches	20⅛ Inches	18 Inches	17 lbs.	98 lbs.
1 1/2 Inch	1 1/2 Inch	28 Inches	20⅛ Inches	18 Inches	20 lbs.	127 lbs.
2 Inch	2 Inch	28 Inches	20⅛ Inches	18 Inches	20 lbs.	127 lbs.

Addison!
PUBLIC WORKS DEPARTMENT

SERVICE CONNECTION WITH METER BOX

STANDARD CONSTRUCTION DETAILS WATER

DATE:	REV DATE:	SHEET :
AUGUST, 2010	--	SD-W20

1

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-1818 972-770-1300
Firm No. 928

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

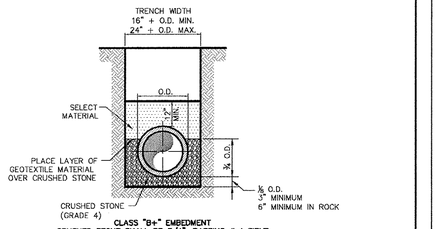
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

WATER DETAILS

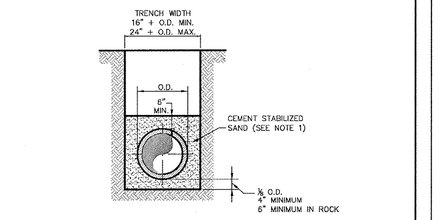
DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C22a



CLASS "B+" EMBEDMENT
CRUSHED STONE SHALL BE 3/4", PASSING # 4 SIEVE

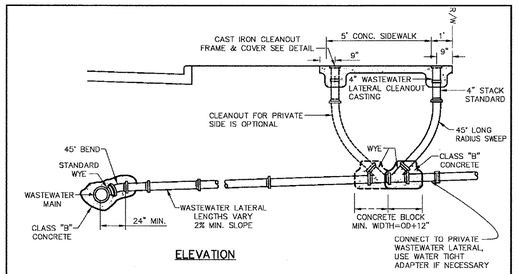
TYPICAL P.V.C. WASTEWATER MAIN EMBEDMENT



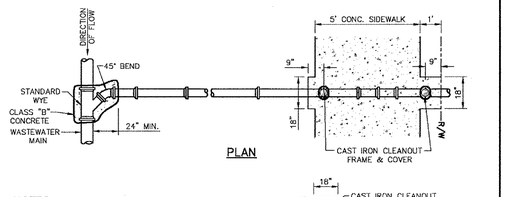
NOTE:
1. CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND IS REQUIRED FOR PRESSURE RATED WASTEWATER MAIN AND LATERAL BEDDING.

P.V.C. WASTEWATER MAIN CEMENT STABILIZED SAND EMBEDMENT

Addison! PUBLIC WORKS DEPARTMENT	P.V.C. WASTEWATER MAIN EMBEDMENT	STANDARD CONSTRUCTION DETAILS WASTEWATER		
		DATE: AUGUST, 2010	REV DATE: --	SHEET : SD-WW01



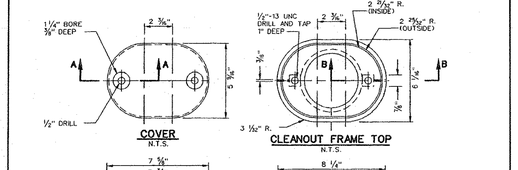
ELEVATION



PLAN

NOTES:
1. WASTEWATER LATERALS ARE TO BE CONSTRUCTED TO CLEAR EXISTING AND PROPOSED FACILITIES, SUCH AS STORM DRAIN MAINS, RETAINING WALLS, OTHER UTILITIES, ETC.
2. THE WASTEWATER LATERAL SHALL HAVE MINIMUM COVER OF 4'-0" BELOW THE PROPOSED CURB GRADE AT THE PROPERTY LINE, DETERMINED FROM PAVING GRADE, OR AS REQUIRED TO MAINTAIN A MINIMUM OF 2.0% GRADE, OR AS DIRECTED BY THE OWNER.

Addison! PUBLIC WORKS DEPARTMENT	TWO-WAY CLEANOUT NEW CONSTRUCTION	STANDARD CONSTRUCTION DETAILS WASTEWATER		
		DATE: AUGUST, 2010	REV DATE: --	SHEET : SD-WW02



1. THE WORDS "WASTEWATER LATERAL CLEANOUT" SHALL BE CAST INTO TOP OF COVER.
2. MATERIALS TO BE CAST IRON.

Addison! PUBLIC WORKS DEPARTMENT	CAST IRON CLEANOUT FRAME & COVER	STANDARD CONSTRUCTION DETAILS WASTEWATER		
		DATE: AUGUST, 2010	REV DATE: --	SHEET : SD-WW03

Kimley-Horn and Associates, Inc.
2700 Post Oak Blvd., Suite 1600
Houston, TX 77056-4408 972-770-1300
Texas Reg. No. 928

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

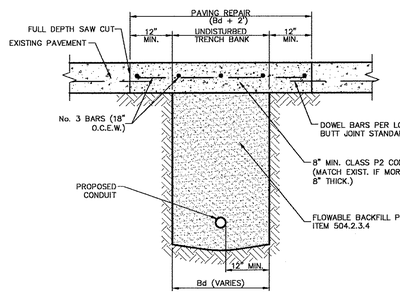
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
Final

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

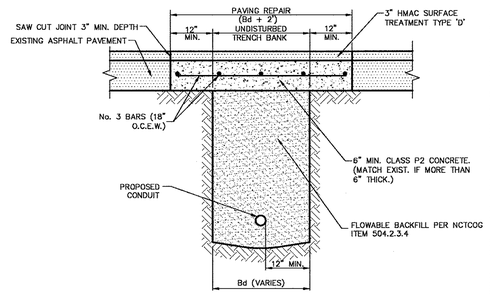
WASTEWATER DETAILS

SHEET
C23



NOTES:
1. REPAIRS SHALL EXTEND TO 1' BEYOND EACH SIDE OF TRENCH (Bd).
2. REINFORCEMENT CHAIRS OR APPROVED DEVICE SHALL BE USED.
3. REPAIRS SHALL MATCH EXISTING GRADE.

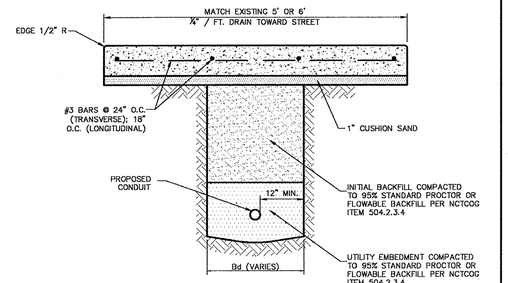
Addison! PUBLIC WORKS DEPARTMENT	UTILITY INSTALLATION BENEATH CONCRETE ROAD SURFACE	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U01



NOTES:
1. REPAIR SHALL EXTEND TO 1' BEYOND EACH SIDE OF TRENCH (Bd).
2. REPAIRS SHALL MATCH EXISTING GRADE.

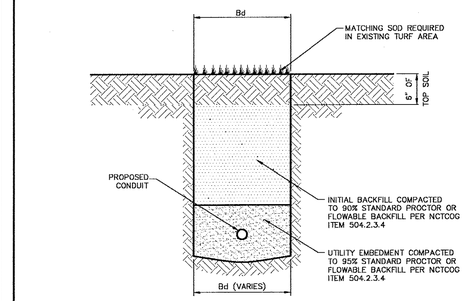
UTILITY INSTALLATION BENEATH ASPHALT ROAD SURFACE
NTS

Addison! PUBLIC WORKS DEPARTMENT	UTILITY INSTALLATION BENEATH ASPHALT ROAD SURFACE	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U02



NOTES:
1. REPAIRS SHALL INCLUDE FULL PANELS FROM JOINT TO JOINT, AND ANY ADJACENT DAMAGED PANELS INDEPENDENT OF Bd.
2. REINFORCEMENT CHAIRS OR APPROVED DEVICE SHALL BE USED.
3. SEE CONCRETE SIDEWALK STANDARD DETAIL FOR SIDEWALK JOINT DETAIL.
4. ALL DISTURBED AREAS SHALL BE SODDED (UNLESS OTHERWISE APPROVED).
5. BACKFILL AND EMBEDMENT PARTICLE SIZE SHALL NOT EXCEED 3" IN ANY DIRECTION.
6. CONNECT TO EXISTING SIDEWALK WITH BARS MATCHING EXISTING INSTALLATION.

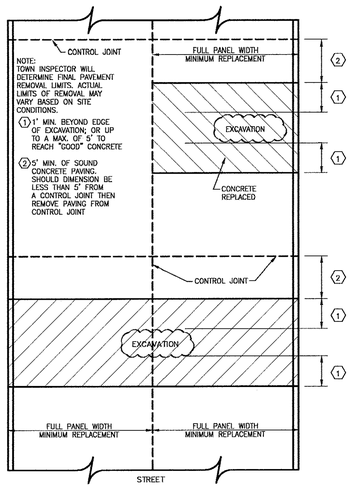
Addison! PUBLIC WORKS DEPARTMENT	UTILITY INSTALLATION BENEATH SIDEWALK	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U03



NOTES:
1. ALL DISTURBED AREAS SHALL BE SODDED (UNLESS OTHERWISE APPROVED).
2. BACKFILL AND EMBEDMENT PARTICLE SIZE SHALL NOT EXCEED 3" ANY DIRECTION.

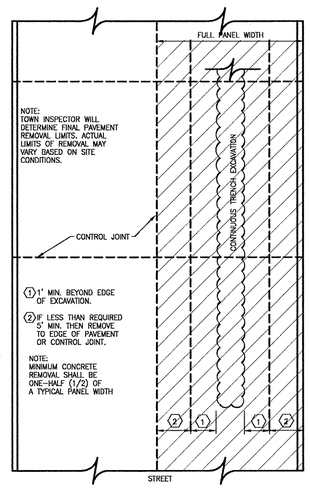
UTILITY INSTALLATION WITHIN TURF AREAS
NTS

Addison! PUBLIC WORKS DEPARTMENT	UTILITY INSTALLATION WITHIN TURF AREAS	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U04



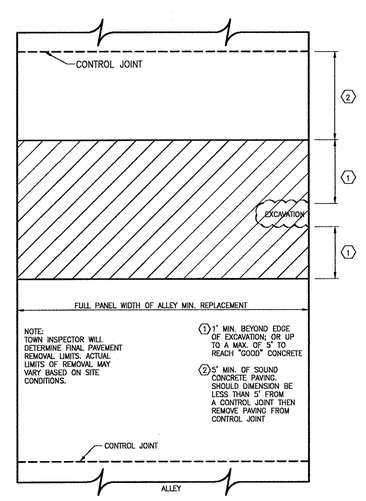
TYPICAL CONCRETE STREET REMOVAL/REPLACEMENT
EXAMPLE 1

Addison! PUBLIC WORKS DEPARTMENT	STREET CUT REPAIRS EXAMPLE 1	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U05



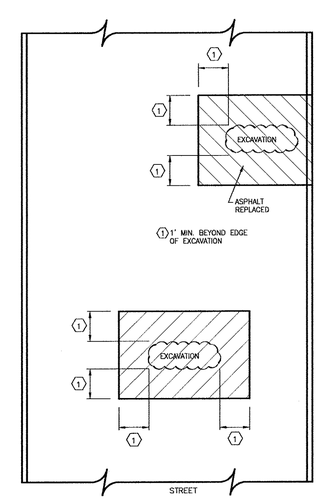
TYPICAL CONCRETE STREET REMOVAL/REPLACEMENT
EXAMPLE 2

Addison! PUBLIC WORKS DEPARTMENT	STREET CUT REPAIRS EXAMPLE 2	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U06



TYPICAL CONCRETE ALLEY REMOVAL/REPLACEMENT
EXAMPLE 3

Addison! PUBLIC WORKS DEPARTMENT	STREET CUT REPAIRS EXAMPLE 3	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U07



TYPICAL ASPHALT STREET REMOVAL/REPLACEMENT
EXAMPLE 4

Addison! PUBLIC WORKS DEPARTMENT	STREET CUT REPAIRS EXAMPLE 4	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	DATE: AUGUST, 2010	REV DATE: –	SHEET : SD-U08

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251-1808 972-770-1300

No.	Revision	Date
1	REVISED TOWN DETAILS	8/26/11

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
10-11-2011

Keller Springs Lofts
Loft Apartments in Addison
Town of Addison, Texas

UTILITY DETAILS

DATE: OCTOBER 11, 2011
DESIGN: KHA
DRAWN: KHA
CHECKED: KHA
KHA NO.: 064362003
CITY NO.:

SHEET
C24