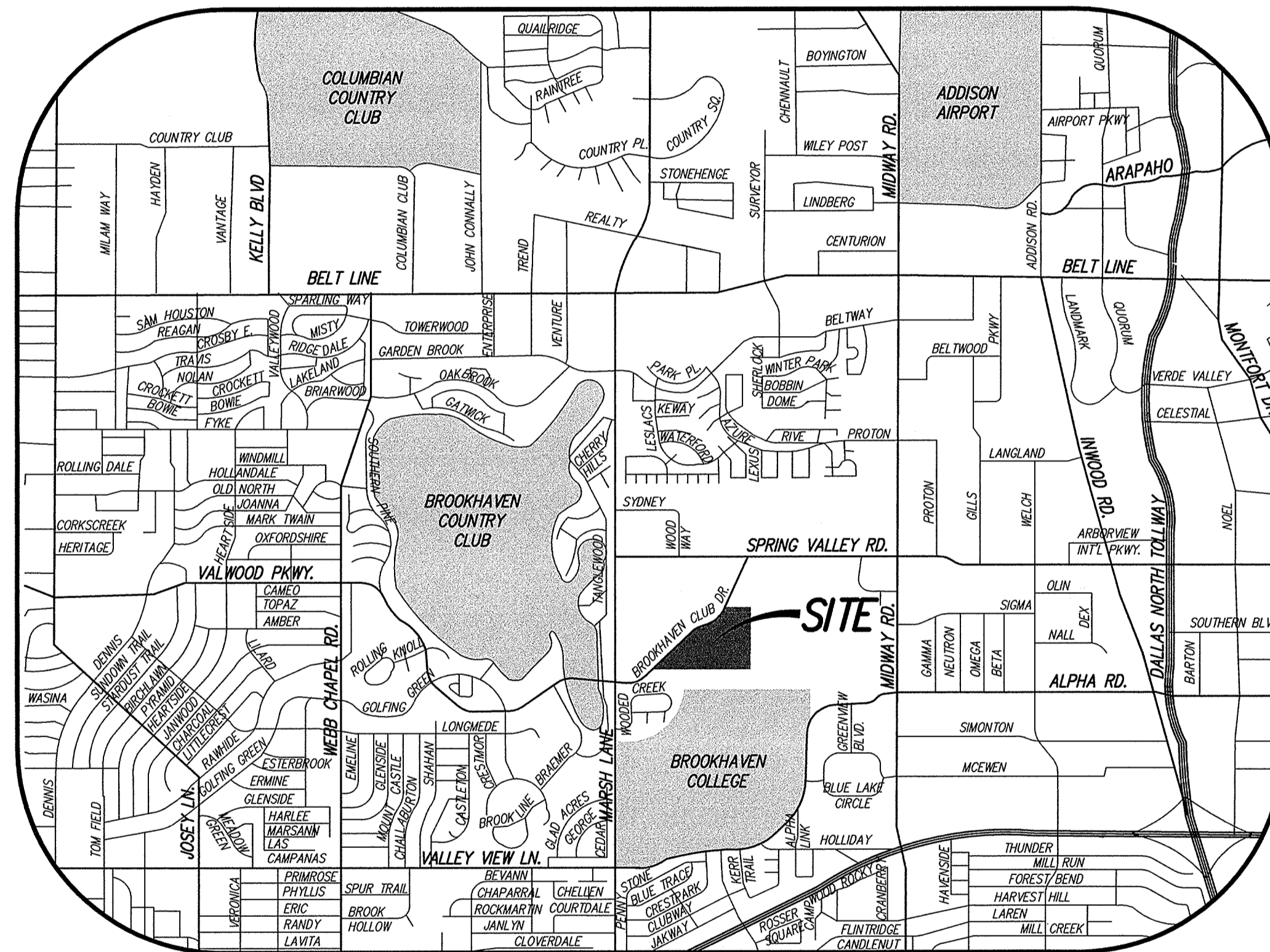
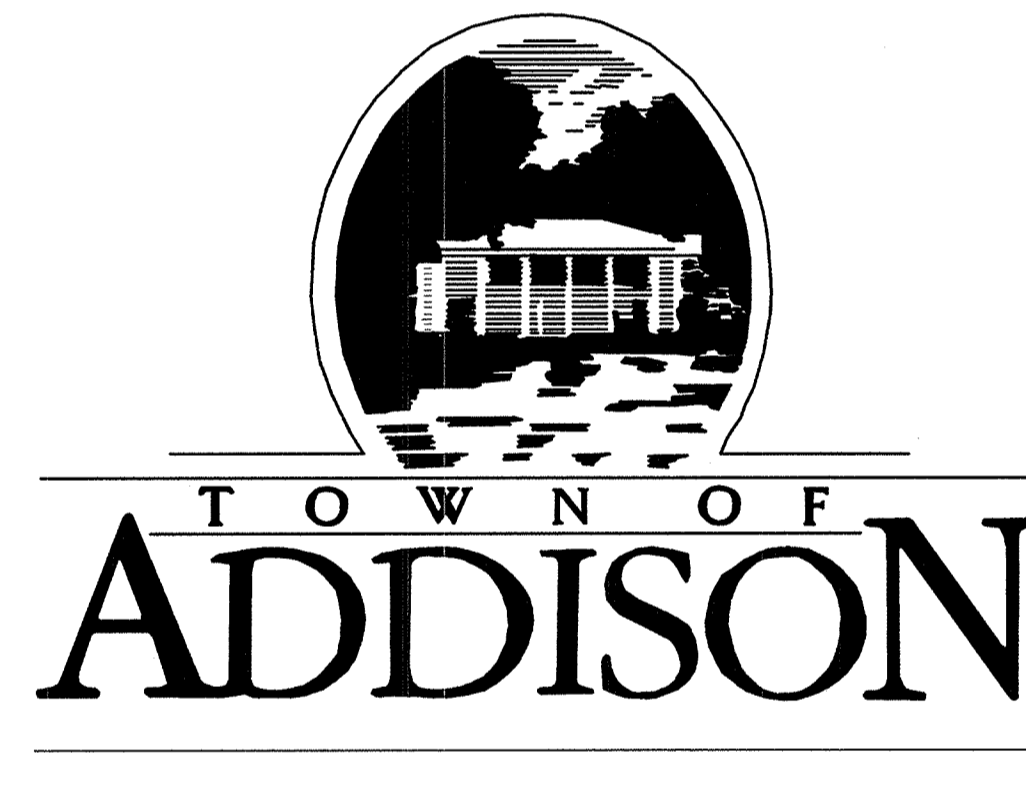


# TOWN OF ADDISON, TEXAS

CONSTRUCTION PLANS FOR

## GREENHAVEN APARTMENTS WATER LINE IMPROVEMENTS

ADDISON, TEXAS



### SHEET INDEX

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LOCATION MAP

NOVEMBER 2005



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Mark J. Holliday P.E.  
Date: 11-14-05

**ENGINEER**

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# GENERAL NOTES

# SYMBOL LEGEND

1. TRAFFIC CONTROL & TRAFFIC CONTROL DEVICES USED DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PARK IV PUBLISHED BY THE TEXAS DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO THE CITY PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL USE EXTREME CAUTION IN LOCATING AND PROTECTING ALL UTILITY SERVICE LINES. WHERE A PROPOSED WATER LINE IS BEING CONSTRUCTED IN A LOCATION DIFFERENT FROM THE EXISTING MAIN, THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AN INSPECTION OF THE MAIN TO BE REPLACED FOR THE PURPOSE OF IDENTIFYING AND LOCATING ALL ACTIVE SERVICE TAPS. THE CONTRACTOR SHOULD NOT ASSUME THAT ALL SERVICES TO BE RECONNECTED ARE SHOWN IN THE PLANS, OR SHOWN IN THE CORRECT LOCATION. THE COST FOR THE PRECONSTRUCTION INSPECTION IS SUBSIDIARY TO THE COST BID FOR THE INSTALLATION OF THE MAIN.
3. THE CONTRACTOR SHALL MAINTAIN EXISTING WATER SERVICE THROUGHOUT CONSTRUCTION, USING TEMPORARY LINES AS NECESSARY. AFTER THE PROPOSED WATER MAIN HAS BEEN TESTED AND APPROVED BY THE TOWN, THE CONTRACTOR SHALL TRANSFER ALL EXISTING METERED SERVICES. NO SERVICE SHALL BE DISRUPTED FOR A PERIOD LONGER THAN SIX (6) HOURS. ALL SERVICES SHALL BE 2" UNLESS OTHERWISE NOTED ON THE PLANS.
4. THE ENGINEER WILL PROVIDE ON THE PLANS HORIZONTAL CONTROL IN THE FORM OF GRID REFERENCE POINTS AND/OR BEARINGS AND DISTANCES AND VERTICAL CONTROL IN THE FORM OF BENCHMARKS. FROM THE CONTROLS PROVIDED ON THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE LAYOUT OF THE WORK AND FOR ESTABLISHING LINES AND ELEVATIONS AS NEEDED DURING CONSTRUCTION. THE CONTRACTOR SHALL FURNISH AT HIS OWN EXPENSE LABOR, INCLUDING THE SERVICES OF COMPETENT PERSONNEL, EQUIPMENT, INCLUDING ACCURATE SURVEYING INSTRUMENTS, STAKES, TEMPLATES, PLATFORMS, TOOLS, AND MATERIALS AS MAY BE REQUIRED FOR LAYING OUT ANY AND ALL PARTS OF THE WORK. ALL WORK ASSOCIATED WITH CONSTRUCTION LAYOUT SHALL BE SUBSIDIARY TO THE VARIOUS CONSTRUCTION PAY ITEMS IN THE CONTRACT.
5. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITY POLES, LIGHT POLES, SIGNALS, AND GUY WIRES. (NO SEPARATE PAY ITEM)
6. THE CONTRACTOR SHALL PRESERVE ALL TREES, SHRUBS, SPRINKLER SYSTEMS, FENCES, MAIL BOXES AND OTHER PROPERTY OWNER IMPROVEMENTS NOT NOTED FOR REMOVAL. THE REMOVAL AND/OR REPLACEMENT OF THE SAID PROPERTY OWNER IMPROVEMENTS BY THE CONTRACTOR DEEMED NECESSARY FOR THE COMPLETION OF SAID PROJECT, INCLUDING BUT NOT LIMITED TO ASPHALT PAVEMENT, CONCRETE SIDEWALKS, CONCRETE CURB/GUTTER, SPEED BUMPS, LANDSCAPING, FENCES, STEPS, PARKING/FIRE LANE STRIPING SHALL BE REPLACED TO EQUAL OR BETTER CONDITION AS A NON-PAY ITEM UNLESS A PAY ITEM EXISTS FOR THE SPECIFIC IMPROVEMENT. ADDITIONAL PARKING/FIRE LANE STRIPING MAY BE ADDED AS DIRECTED BY THE TOWN BUT NOT TO EXCEED 250 LF.
7. THE CONTRACTOR SHALL GIVE THE TOWN, APARTMENT MANAGEMENT, AND BUSINESSES AFFECTED BY ANTICIPATED WATER OR SEWER SERVICE DISRUPTIONS AT LEAST FORTY-EIGHT (48) HOURS PRIOR NOTICE.
8. DUCTILE IRON FITTINGS REQUIRED TO PROPERLY INSTALL THE PROPOSED WATER LINES ON THIS PROJECT SHALL BE MEASURED SEPARATELY, AND SHALL BE PAID FOR UNDER A SEPARATE PAY ITEM PER TON.
9. ALL EXISTING FIRE HYDRANTS WITHIN THE LIMITS OF THE PROJECT, SHALL BE SALVAGED AND DELIVERED TO THE TOWN OF ADDISON PUBLIC WORKS YARD AT 16801 WESTGROVE BY THE CONTRACTOR. (NO SEPARATE PAY ITEM)
10. ALL EXISTING WATER VALVES SHALL BE ABANDONED ON ALL KILLED WATER MAINS PER VALVE ABANDONMENT DETAIL. VALVE COVERS AND CAPS SHALL BE SALVAGED AND DELIVERED TO THE TOWN OF ADDISON PUBLIC WORKS YARD. WATER MAINS TO BE ABANDONED SHALL BE CUT, CAPPED, AND BLOCKED WITH CONCRETE AT ALL ENDS AND/OR FITTINGS.
11. THE PROPOSED WATER MAIN SHALL HAVE A MINIMUM COVER OF FOUR (4') FEET MEASURED FROM THE TOP OF THE EXISTING CURB OR FROM THE TOP OF THE EXISTING GROUND TO THE TOP OF THE PROPOSED PIPE, WHICHEVER IS GREATER, OR AS DIRECTED BY THE ENGINEER.
12. THE CONTRACTOR SHALL CENTER A FULL 20-FOOT LONG JOINT OF THE PROPOSED PIPE AT A STORM SEWER CROSSING IF THE PROPOSED PIPE MUST PASS UNDER THE STORM SEWER.
13. WHERE PROPOSED OR EXISTING WATER LINES CROSS PROPOSED OR EXISTING SANITARY SEWER LINES: 1) THE SANITARY SEWER MAIN SHOULD BE EITHER CONCRETE ENCASED (20' CENTERED ON CROSSING); OR 2) A FULL 20-FOOT LONG JOINT OF PIPE SHALL BE CENTERED AT THE CROSSING AND A 2-FOOT VERTICAL CLEARANCE BE MAINTAINED. PAYMENT IS SUBSIDIARY TO COST OF PIPE.
14. ALL DUCTILE IRON FITTINGS SHALL BE POLYWRAPPED.
15. THE CONTRACTOR SHALL MAINTAIN FIRE EMERGENCY VEHICLE ACCESS TO FIRE HYDRANTS THROUGHOUT CONSTRUCTION.
16. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE DRIVING LANE OPEN FOR INGRESS/EGRESS OF VEHICULAR TRAFFIC THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY APARTMENT MANAGEMENT IF PARKING AREAS WILL BE INACCESSIBLE 48 HOURS PRIOR TO CONSTRUCTION.

17. IRRIGATION AND SPRINKLER SYSTEM NOTES (SEE TOWN OF ADDISON SPECIFICATIONS):
  - A) THE CONTRACTOR SHALL HIRE A LICENSED IRRIGATOR AS A SUBCONTRACTOR TO OVERSEE ALL ACTIVITIES THAT IMPACT EXISTING, OR PROPOSED IRRIGATION SYSTEMS.
  - B) PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES, EXISTING IRRIGATION SYSTEMS SHALL BE TURNED ON. THE LOCATION OF THE HEADS, VALVES, AND PIPE SHALL BE MARKED WHERE DEMOLITION OR CONSTRUCTION WILL IMPACT THE SYSTEM. DEFICIENCIES IN THE SYSTEM SHALL BE NOTED AND REPORTED TO THE SYSTEM OWNER. A PHOTOGRAPHIC OR VIDEO RECORD SHALL BE MADE IF APPROPRIATE.
  - C) PIPING SHALL BE CUT, CAPPED, AND MARKED AT THE LIMITS OF CONSTRUCTION.
  - D) AT THE COMPLETION OF CONSTRUCTION, THE LICENSED IRRIGATOR SHALL RESTORE AND TEST THE IRRIGATION SYSTEMS FOR PROPER FUNCTION. THE TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE TOWN OF ADDISON'S PUBLIC WORKS INSPECTOR, AND THE SYSTEM OWNERS. (NO SEPARATE PAY)
18. CONTRACTOR SHALL CONFORM WITH THE "NORTH CENTRAL TEXAS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (NCTSSPWC) AND ALL TOWN OF ADDISON STANDARD CONSTRUCTION DETAILS.
19. ALL BENDS AND FIRE HYDRANTS SHALL INCLUDE RESTRAINED TYPE FITTINGS WITH RETAINER GLANDS IN ADDITION TO CONCRETE THRUST BLOCKING. ALL FIRE HYDRANTS SHALL BE INSTALLED PER STANDARD DETAILS. CONCRETE THRUST BLOCKING MAY BE ELIMINATED AT THE OWNER'S DISCRETION.
20. WATER MAINS SHALL BE AWWA C-909, CL 150.
21. ALL PAVEMENT AND DRIVEWAY REPAIRS SHALL MATCH EXISTING GRADE, ELEVATIONS, AND SURFACE MATERIALS. ALL CONSTRUCTION TO BE PER TOWN STANDARDS.
22. ALL PORTIONS OF EXISTING PAVEMENT THAT ARE TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. REMOVAL OF ANY PAVEMENT THAT IS NOT SHOWN TO BE REMOVED SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN OF ADDISON.
23. ALL WATER SERVICE LINES THAT EXTEND ACROSS PUBLIC STREETS SHALL BE BORED UNDERNEATH THE EXISTING PAVEMENT UNLESS OTHERWISE NOTED.
24. THE CONTRACTOR SHALL CONNECT ALL NEW SERVICE LINES TO THE NEW WATER METERS. (NO SEPARATE PAY ITEM)
25. THE CONTRACTOR SHALL INSTALL NEW WATER METERS AND BOXES ACCORDING TO THE TOWN OF ADDISON SPECIFICATIONS. ALL METERS SHALL BE EQUIPPED WITH ELECTRONIC ENCODER REGISTERS, PROGRAMMED TO READ IN THOUSAND GALLON INCREMENTS, FOR CONNECTION TO TOUCH PAD. WATER METERS SHALL BE 5/8", 1", 1.5", OR 2". ALL EXISTING WATER METERS SHALL BE SALVAGED AND DELIVERED TO THE TOWN OF ADDISON PUBLIC WORKS YARD. COORDINATE METER CHANGE-OUT WITH THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT.
26. AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED, BY A LICENSED PLUMBER ON ALL WATER SERVICES AFTER THE METER, WITH A BRASS OR COPPER NIPPLE BETWEEN THE METER AND THE ASSEMBLY OF SUFFICIENT LENGTH TO ALLOW PLACEMENT IN SEPARATE BOXES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE ASSEMBLY TESTED UPON INSTALLATION BY A CERTIFIED TESTER, REGISTERED WITH THE TOWN OF ADDISON. THE ORIGINAL TEST RESULTS SHALL BE PROVIDED TO THE TOWN OF ADDISON UTILITY DIVISION PRIOR TO FINAL CONTINUOUS CONNECTION TO THE TOWN'S WATER SUPPLY. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE USC APPROVED. INSTALLATION OF THE BPA SHALL BE SUBSIDIARY TO THE METER. THE APPROPRIATE BPA WILL BE DETERMINED BY THE TOWN OF ADDISON UTILITY DIVISION USING THE MOST CURRENT EDITION OF THE MANUAL OF CROSS-CONNECTION CONTROL AS PUBLISHED BY USCFCCOHR AS A GUIDELINE. FINAL DETERMINATION RESTS WITH THE TOWN OF ADDISON. ALL BPAs SHALL BE INSTALLED ACCORDING TO THE MOST RECENT EDITION OF THE TOWN OF ADDISON'S STANDARD OPERATING PROCEDURES MANUAL.
27. ALL PAVEMENT FOR REMOVAL WITHIN THE PROJECT LIMITS SHALL BE SAWCUT. ALL SAWCUTS SHALL BE FULL DEPTH. (NO SEPARATE PAY ITEM)
28. BEFORE THE NEWLY CONSTRUCTED WATER MAIN IS PERMITTED TO BE PLACED INTO SERVICE, IT SHALL BE PRESSURE TESTED, DISINFECTED AND TESTED FOR BACTERIA AT THE CONTRACTOR'S EXPENSE. TESTING IS TO BE ACCOMPLISHED BY A TOWN OF ADDISON APPROVED LAB. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DESINFECTATION AND TESTING.
29. STAGING AND STORAGE FOR THIS PROJECT SHALL BE APPROVED BY THE TOWN OF ADDISON PRIOR TO ANY CONSTRUCTION ACTIVITY.
30. ALL NEW DUMMY AND EXPANSION JOINTS SHALL MATCH EXISTING JOINT LOCATIONS, WHICH SHALL BE RECORDED BY VIDEO, SKETCH, PHOTO ETC. PRIOR TO DEMOLITION.
31. CONTRACTOR SHALL SUPPLY RECORD DRAWINGS TO THE TOWN OF ADDISON, BASED UPON MARKUP PLANS PROVIDED BY THE CONTRACTOR.

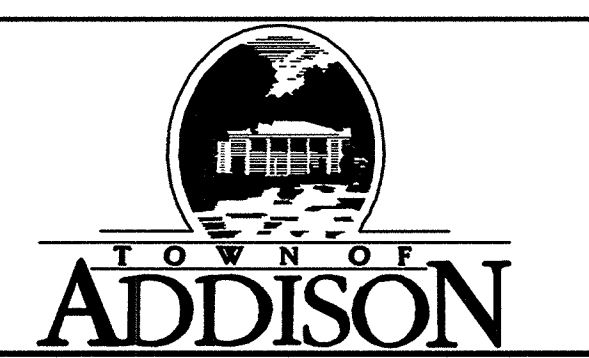
32. LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE BASED ON INFORMATION PROVIDED BY THE OWNERS OF THE UTILITIES AND FIELD SURVEYS. THERE MAY ALSO BE EXISTING UTILITIES THAT ARE NOT SHOWN. THE OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THIS INFORMATION. CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. IF A CONFLICT IS DISCOVERED BETWEEN EXISTING UTILITIES AND PROPOSED IMPROVEMENTS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY. IT SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO COORDINATE WITH UTILITY COMPANY FOR ANY NECESSARY RELOCATION OF FACILITIES AND NO SEPARATE PAYMENT SHALL BE MADE. ADDITIONALLY, CONTRACTOR SHALL NOT BE COMPENSATED FOR DELAYS OR REMOBILIZATION DUE TO UTILITY COORDINATION. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT CONTRACTOR'S SOLE EXPENSE. CONTRACT TIME SHALL NOT BE EXTENDED DUE TO DELAYS CAUSED BY UTILITY COORDINATION. RESPONSIBILITY TO NOTIFY THE OWNERS TO ARRANGE FOR EXACT LOCATIONS AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
 

<b>UTILITY</b> TXU ELECTRIC DELIVERY (214) 875-2256 WORLDCOM/MCI (972) 656-5519 TELE-CABLE (214) 578-7573 DIG-TESS 1-800-344-8377 SBC (214) 920-0189 AT&T (972) 907-4073 TOWN OF ADDISON (DAVE WILDE) (972) 450-2871 GREENHAVEN APARTMENTS (972) 241-8851 ADDISON OF BROOKHAVEN APARTMENTS (972) 241-7991	<b>TELEPHONE</b> (214) 875-2256 (972) 656-5519 (214) 578-7573 1-800-344-8377 (214) 920-0189 (972) 907-4073 (972) 450-2871 (972) 241-8851 (972) 241-7991
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33. ANY CONSTRUCTION ITEM OR REQUIRED WORK SHOWN ON THESE PLANS FOR WHICH THERE IS NO SPECIFIC BID ITEM IN THE PROPOSAL SHALL BE CONSIDERED SUBSIDIARY TO THE OTHER BID ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.
34. CONTRACTOR SHALL PREPARE PHOTOGRAPHS AND A VIDEO OF THE PROJECT SITE DOCUMENTING SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. VIDEO SHALL CLEARLY SHOW ALL PUBLIC AND PRIVATE IMPROVEMENTS WITHIN AND ADJACENT TO THE PROJECT LIMITS INCLUDING, BUT NOT LIMITED TO, DRIVEWAYS, STRIPING, FENCES, STRUCTURES, LANDSCAPING, POOLS, ABOVE GROUND UTILITIES, RETAINING WALLS, ETC. NO SEPARATE PAYMENT SHALL BE MADE FOR PREPARATION OF PHOTOGRAPHS AND VIDEO. A COPY OF THE VIDEO SHALL BE PROVIDED TO THE TOWN.
35. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DETAILED CONSTRUCTION SCHEDULE AT THE PRECONSTRUCTION CONFERENCE FOR EACH PHASE OF THE PROJECT.
36. ALL PEDESTRIAN FACILITIES SHALL CONFORM TO CURRENT AMERICAN'S WITH DISABILITIES ACT (ADA) REQUIREMENTS. LETTER OF CONFIRMATION REQUIRED FOR FINAL ACCEPTANCE.
37. SUBGRADE SHALL BE COMPACTED TO 95% STD PROCTOR DENSITY WITHOUT 0 ± 3% OPTIMUM MOISTURE AND APPROVED BY TOWN'S INDEPENDENT LAB BEFORE PROCEEDING WITH CONSTRUCTION. (PROVIDED BY CONTRACTOR AT NO SEPARATE PAY)
38. ALL CONCRETE FORMS SHALL BE APPROVED BY TOWN INSPECTOR PRIOR TO POURING.
39. WORKING HOURS SHALL BE DETERMINED BY THE TOWN OF ADDISON AND PROPERTY OWNER MANAGEMENT.
40. SPRINKLING FOR DUST CONTROL SHALL CONSIST OF THE AUTHORIZED APPLICATION OF WATER AS DIRECTED BY THE TOWN OF ADDISON. WATER SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE CLEAN, FREE FROM INDUSTRIAL WASTE AND OTHER OBJECTIONABLE MATTER. THE CONTRACTOR SHALL FURNISH AND OPERATE A SPRINKLER EQUIPPED WITH POSITIVE AND RAPIDLY WORKING CUTOFF VALVES AND APPROVED SPRAY BARS, WHICH SHALL INSURE THE DISTRIBUTION OF WATER IN A UNIFORM AND CONTROLLABLE RATE OF APPLICATION. IT SHALL BE THE CONTRACTOR'S CONTINUOUS RESPONSIBILITY AT ALL TIMES INCLUDING NIGHTS, HOLIDAYS, WEEKENDS, ETC., UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER, TO MAINTAIN THE PROJECT FREE OF DUST IN A MANNER WHICH SHALL CAUSE THE LEAST INCONVENIENCE TO THE PUBLIC. (NO SEPARATE PAY)

EXISTING	PROPOSED
SURVEY CONTROL POINT	MAILBOX
S.S. CLEAN OUT	S.S. MANHOLE
WATER LINE	WATER SERVICE
SANITARY SEWER LINE	STORM DRAIN LINE
OVERHEAD ELECTRIC	GAS LINE
FIRE HYDRANT	IRON ROD FOUND
GAS METER	LIGHT POLE
GUY WIRE	S.D. MANHOLE
SPRINKLER VALVE	PULL BOX
SIGN	POWER POLE
WATER METER/BPA	PRIVATE CUT-OFF VALVE
WATER VALVE	WATER VALVE
TREE	SHRUB
FENCE	BUILDING
CONC. REMOVAL AND REPLACEMENT	HMAC REMOVAL AND REPLACEMENT
BORING FOR WATER LINE	

T/C = TOP OF CURB ELEV.  
 F/L = FLOW LINE ELEV.  
 MH = MANHOLE  
 CO = CLEANOUT

NO.	REVISION	BY	DATE



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HORIZ N/A
VERT N/A
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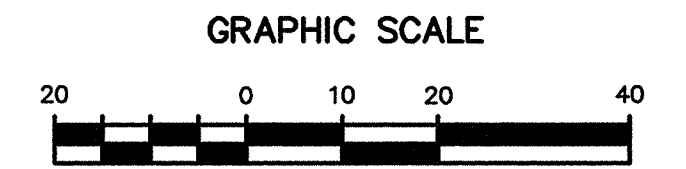
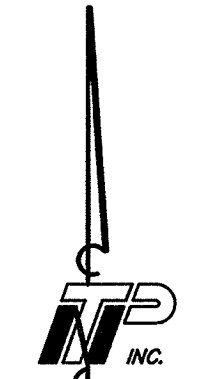
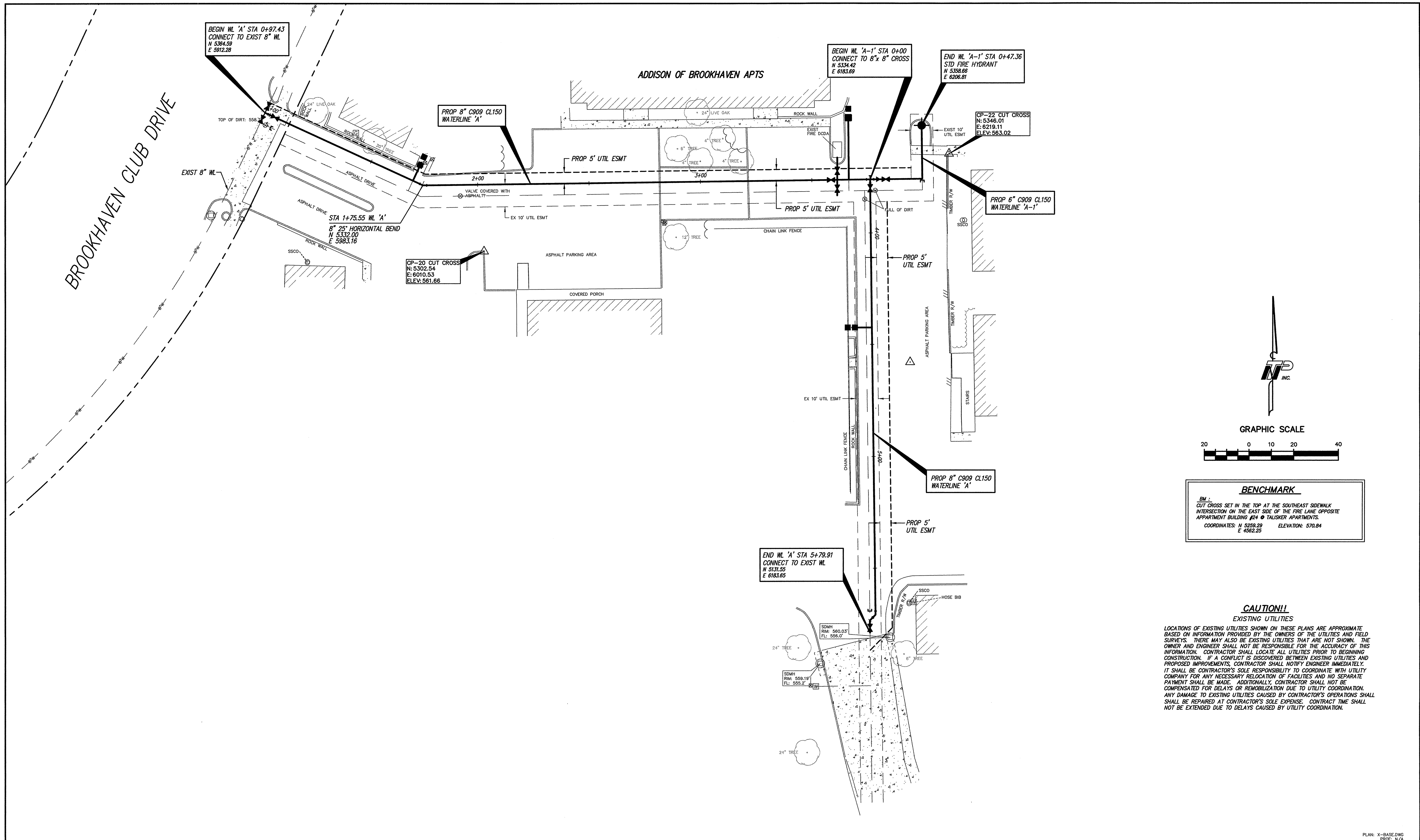


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Date: 11-14-05  
 Mark J. Holliday P.E.

TOWN OF ADDISON, TEXAS	TNP PROJECT ADD04305
GREENHAVEN APARTMENTS	SHEET
<b>WATER LINE IMPROVEMENTS</b>	<b>2</b>
GENERAL NOTES	OF 11



**BENCHMARK**

BM - CUT CROSS SET IN THE TOP AT THE SOUTHEAST SIDEWALK INTERSECTION ON THE EAST SIDE OF THE FIRE LANE OPPOSITE APARTMENT BUILDING #24 @ TALISKER APARTMENTS.

COORDINATES: N 5259.29 ELEVATION: 570.84  
E 4562.25

**CAUTION!!**  
EXISTING UTILITIES

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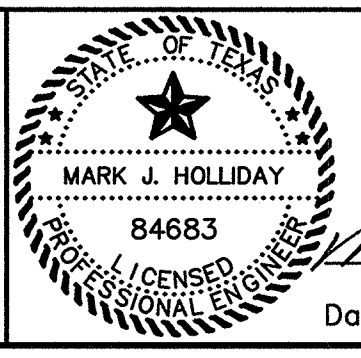


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1" = 20'  
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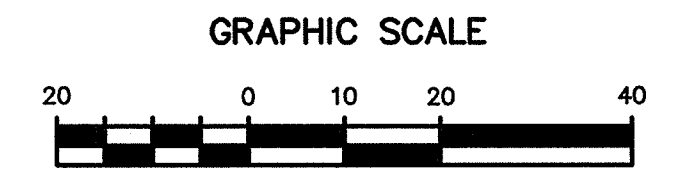
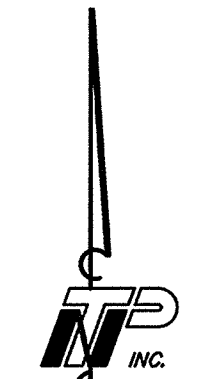
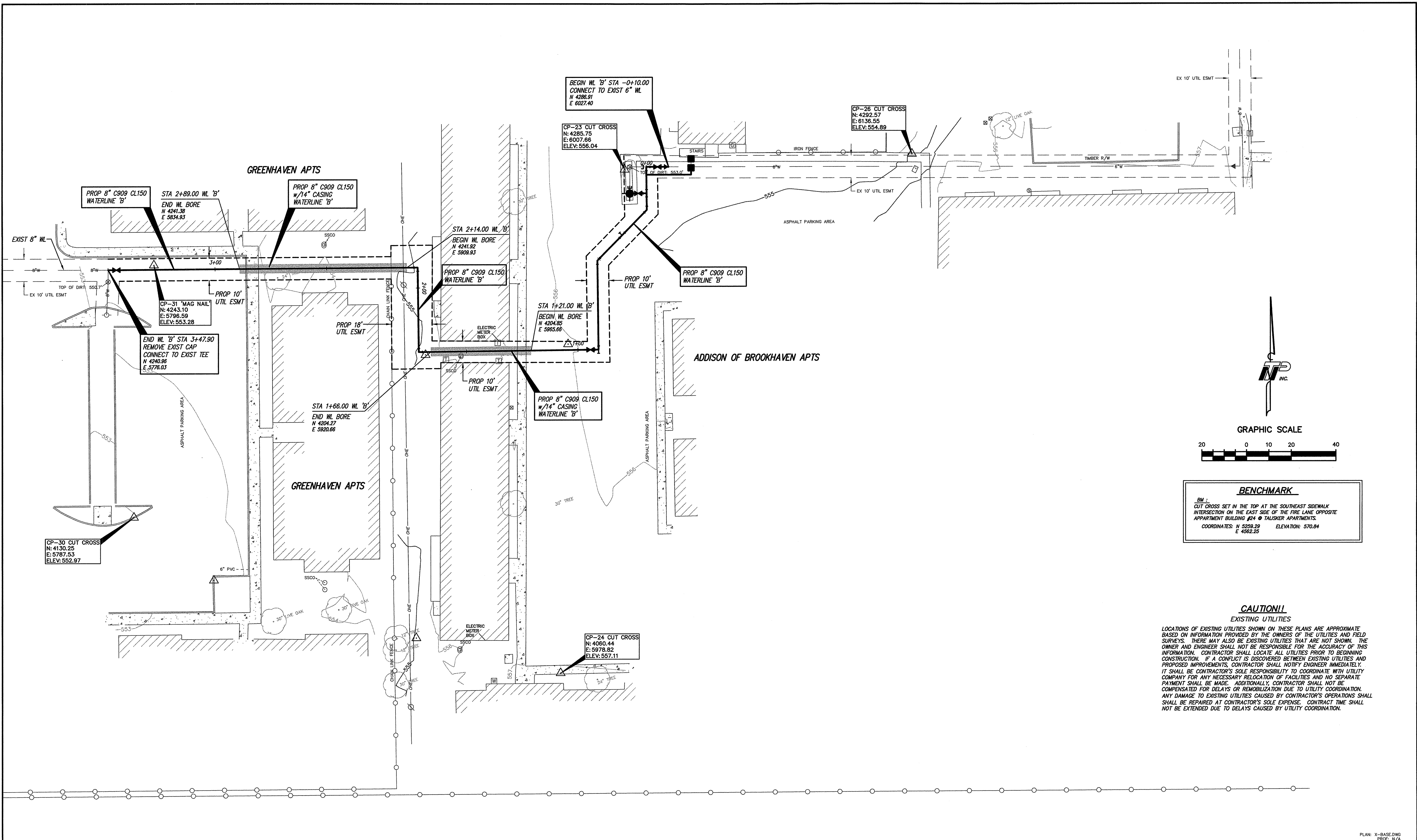
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Mark J. Holliday P.E.  
Date: 11-14-05

TOWN OF ADDISON, TEXAS  
GREENHAVEN APARTMENTS  
WATER LINE IMPROVEMENTS  
PROJECT LAYOUT  
WATER LINE 'A' & 'A-1'

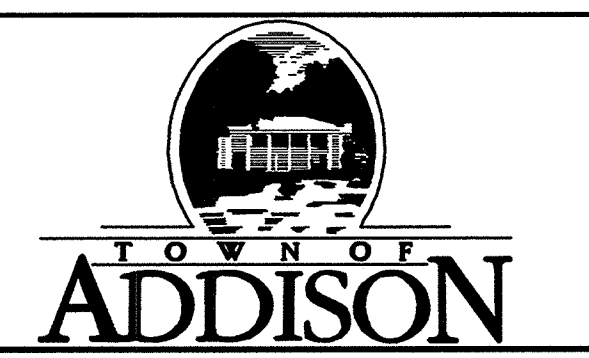
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PRJF: N/A  
TNP PROJECT  
ADD04305  
SHEET  
**3**  
OF  
11



**BENCHMARK**  
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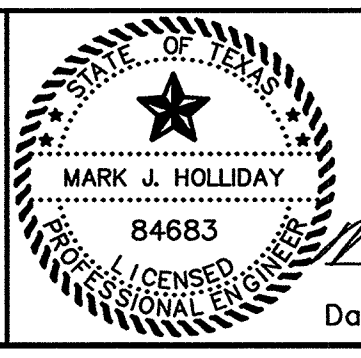
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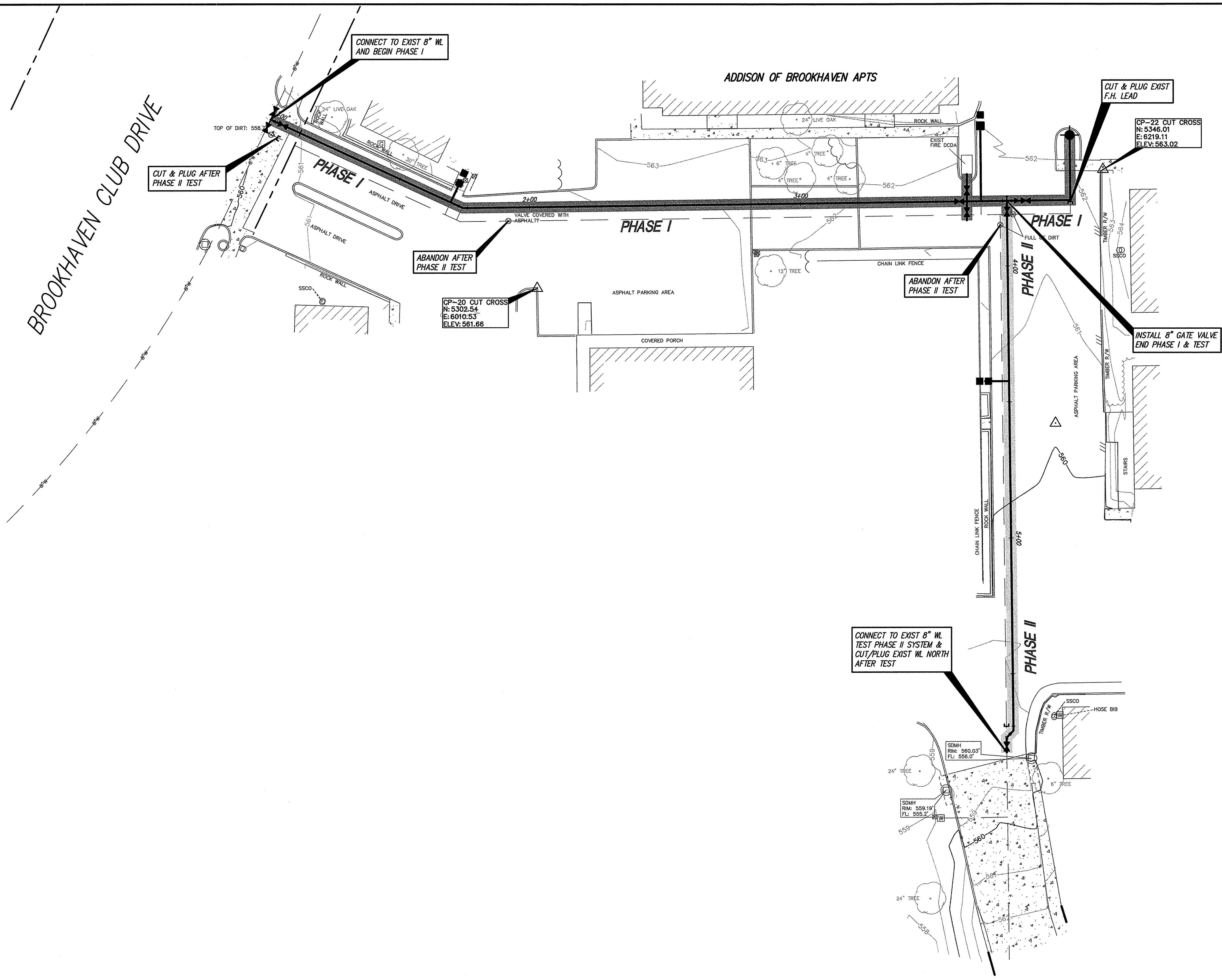
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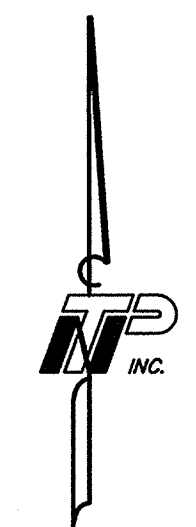
TOWN OF ADDISON, TEXAS	TNP PROJECT ADD04305
GREENHAVEN APARTMENTS	SHEET
<b>WATER LINE IMPROVEMENTS</b>	<b>4</b>
PROJECT LAYOUT – WATER LINE 'B'	OF 11

PLAN: X-BASE.DWG  
 PRGF: N/A

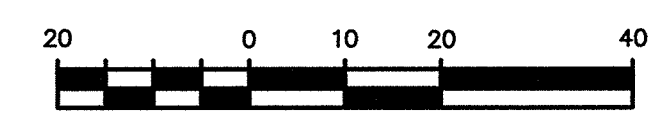


**GENERAL NOTES**

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2. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE DRIVING LANE OPEN FOR INGRESS/EGRESS OF VEHICULAR TRAFFIC THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY APARTMENT MANAGEMENT IF PARKING AREAS WILL BE INACCESSIBLE 48 HOURS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL USE EXTREME CAUTION IN LOCATING AND PROTECTING ALL UTILITY SERVICE LINES. WHERE A PROPOSED WATER LINE IS BEING CONSTRUCTED IN A LOCATION DIFFERENT FROM THE EXISTING MAIN, THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AN INSPECTION OF THE MAIN, TO BE REPLACED FOR THE PURPOSE OF IDENTIFYING AND LOCATING ALL ACTIVE SERVICE TAPS. THE CONTRACTOR SHOULD NOT ASSUME THAT ALL SERVICES TO BE RECONNECTED ARE SHOWN IN THE PLANS, OR SHOWN IN THE CORRECT LOCATION. THE COST FOR THE PRECONSTRUCTION INSPECTION IS SUBSIDIARY TO THE COST BID FOR THE INSTALLATION OF THE MAIN.
4. THE CONTRACTOR SHALL MAINTAIN EXISTING WATER SERVICE THROUGHOUT CONSTRUCTION, USING TEMPORARY LINES AS NECESSARY. AFTER THE PROPOSED WATER MAIN HAS BEEN TESTED AND APPROVED BY THE TOWN, THE CONTRACTOR SHALL TRANSFER ALL EXISTING METERED SERVICES. NO SERVICE SHALL BE DISRUPTED FOR A PERIOD LONGER THAN SIX (6) HOURS. ALL SERVICES SHALL BE 2" UNLESS OTHERWISE NOTED ON THE PLANS.
5. THE CONTRACTOR SHALL GIVE THE TOWN, APARTMENT MANAGEMENT, AND BUSINESSES AFFECTED BY ANTICIPATED WATER OR SEWER SERVICE DISRUPTIONS AT LEAST FORTY-EIGHT (48) HOURS PRIOR NOTICE.



**GRAPHIC SCALE**



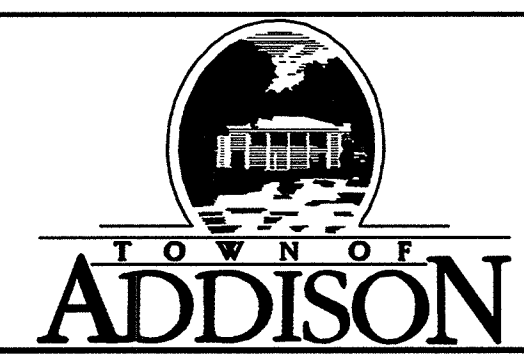
**BENCHMARK**

BM :  
CUT CROSS SET IN THE TOP AT THE SOUTHEAST SIDEWALK INTERSECTION ON THE EAST SIDE OF THE FIRE LANE OPPOSITE APARTMENT BUILDING #24 @ TRUISKER APARTMENTS.  
COORDINATES: N 5259.29 E 4562.23 ELEVATION: 570.84

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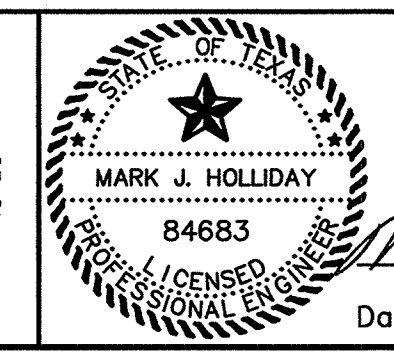
NO.	REVISION	BY	DATE



SCALE  
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1" = 20'  
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DATE  
NOV 2005



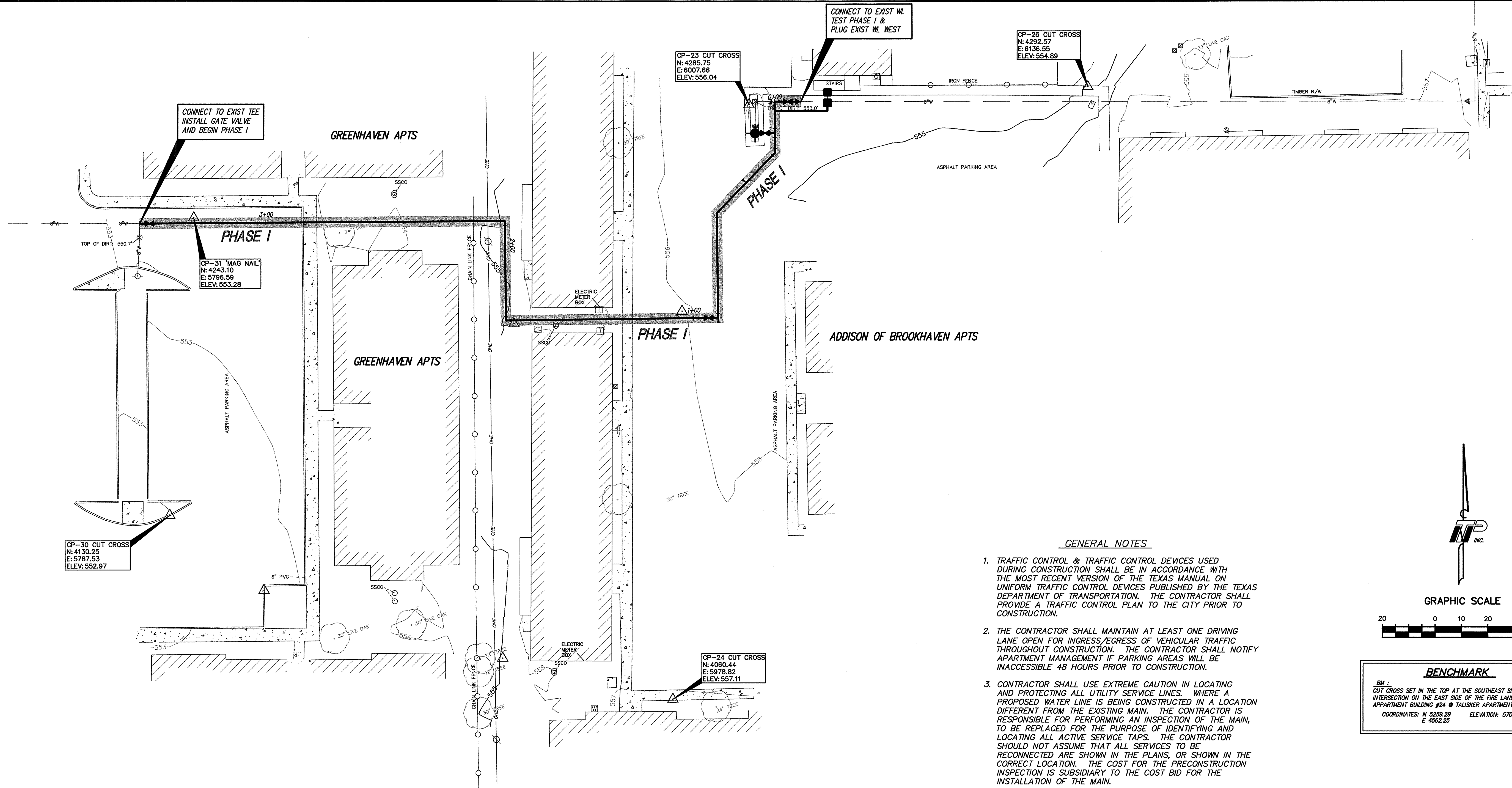
**TEAGUE NALL AND PERKINS**  
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235 W. Hickory Street #100 Denton, Texas 76201 (940) 383-4177  
12160 Abrams Road #508 Dallas, Texas 75243 (214) 461-9867



Mark J. Holliday P.E.  
Date: 11-14-05

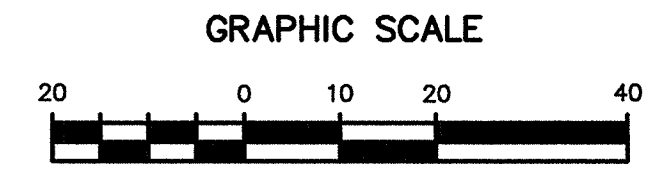
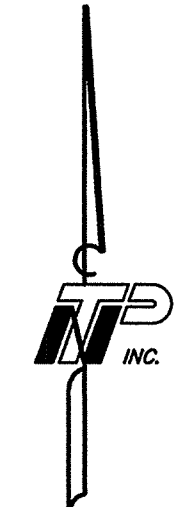
TOWN OF ADDISON, TEXAS  
GREENHAVEN APARTMENTS  
WATER LINE IMPROVEMENTS  
PROJECT CONSTRUCTION SEQUENCING

TNP PROJECT  
ADD04305  
SHEET  
**5**  
OF  
11



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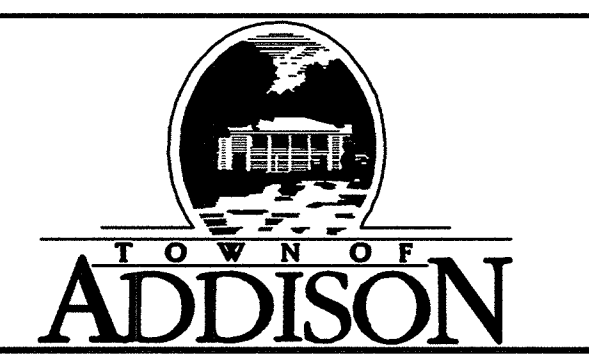


**BENCHMARK**  
 BM :  
 CUT CROSS SET IN THE TOP AT THE SOUTHEAST SIDEWALK INTERSECTION ON THE EAST SIDE OF THE FIRE LANE OPPOSITE APARTMENT BUILDING #24 @ TALISKER APARTMENTS.  
 COORDINATES: N 5259.28 ELEVATION: 570.84  
 E 4982.25

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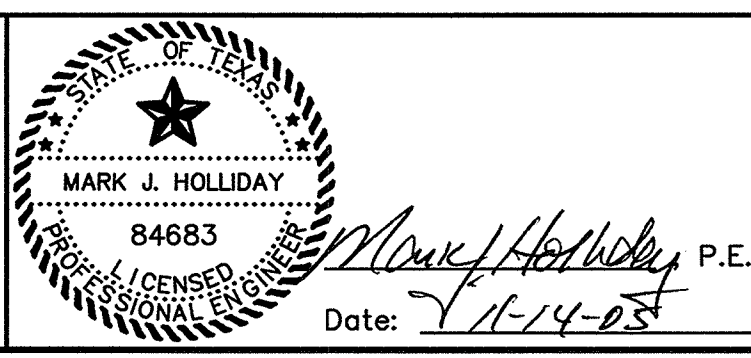
NO.	REVISION	BY	DATE



SCALE  
 HORIZ  
 1" = 20'  
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 NOV 2005

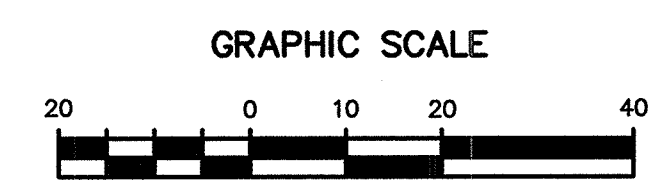
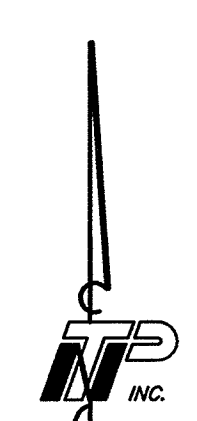
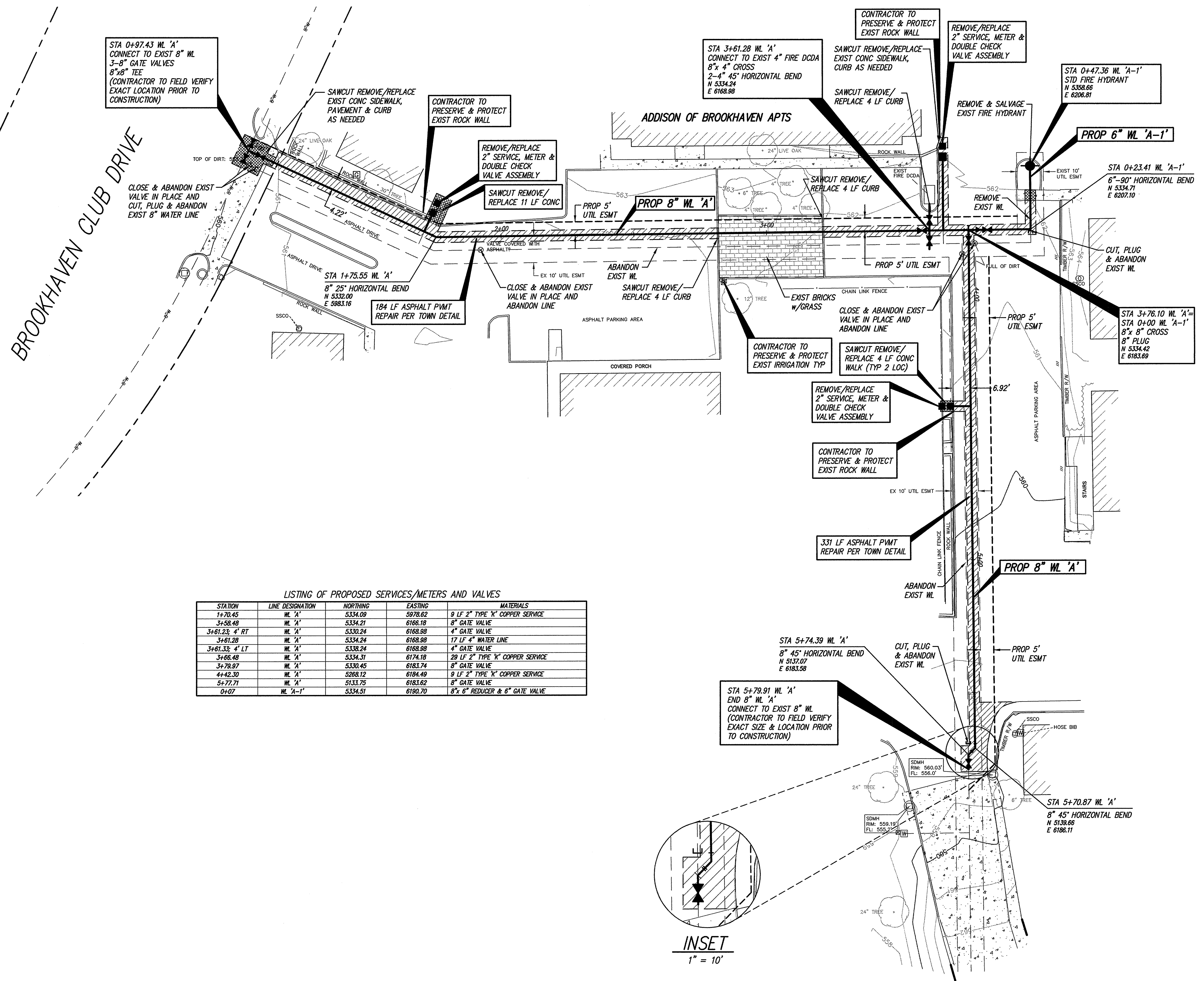


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TOWN OF ADDISON, TEXAS  
 GREENHAVEN APARTMENTS  
**WATER LINE IMPROVEMENTS**  
 PROJECT CONSTRUCTION SEQUENCING

TNP PROJECT  
 ADD04305  
 SHEET  
**6**  
 OF  
 11



LISTING OF PROPOSED SERVICES/METERS AND VALVES

STATION	LINE DESIGNATION	NORTHING	EASTING	MATERIALS
1+70.45	WL 'A'	5334.09	6178.62	9 LF 2" TYPE 'K' COPPER SERVICE
3+58.48	WL 'A'	5334.21	6166.18	8" GATE VALVE
3+61.23 4' RT	WL 'A'	5330.24	6168.98	4" GATE VALVE
3+61.28	WL 'A'	5334.24	6168.98	17 LF 4" WATER LINE
3+61.33 4' LT	WL 'A'	5338.24	6168.98	4" GATE VALVE
3+66.48	WL 'A'	5334.31	6174.18	29 LF 2" TYPE 'K' COPPER SERVICE
3+78.97	WL 'A'	5330.45	6183.74	8" GATE VALVE
4+42.30	WL 'A'	5288.12	6184.49	9 LF 2" TYPE 'K' COPPER SERVICE
5+77.71	WL 'A'	5133.75	6183.62	8" GATE VALVE
0+07	WL 'A-1'	5334.51	6190.70	8" 6" REDUCER & 6" GATE VALVE

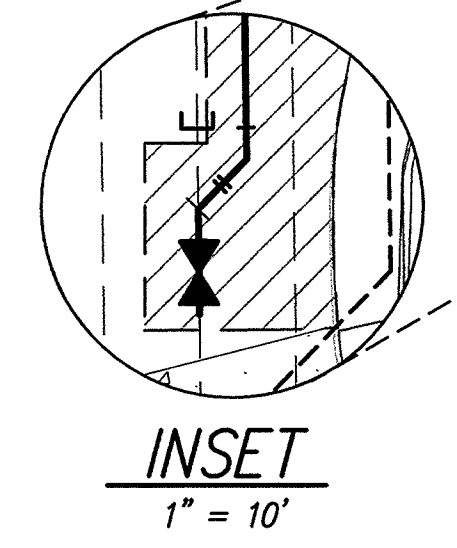
**BENCHMARK**

BM :  
CUT CROSS SET IN THE TOP AT THE SOUTHEAST SIDEWALK INTERSECTION ON THE EAST SIDE OF THE FIRE LANE OPPOSITE APARTMENT BUILDING #24 @ TALISKER APARTMENTS

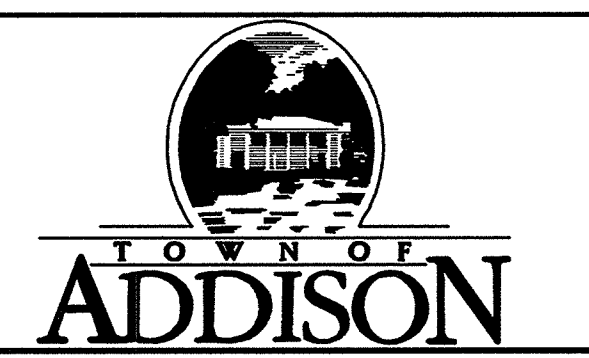
COORDINATES: N 5259.29 ELEVATION: 570.84  
E 4562.25

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NO.	REVISION	BY	DATE

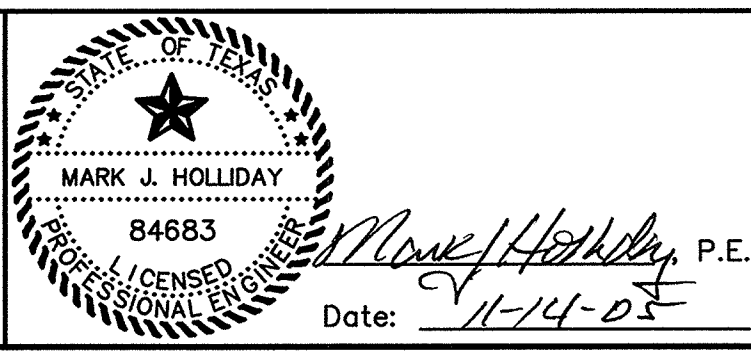


SCALE  
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NOV 2005



**TEAGUE NALL AND PERKINS**  
ENGINEERS ♦ SURVEYORS ♦ CONSULTANTS

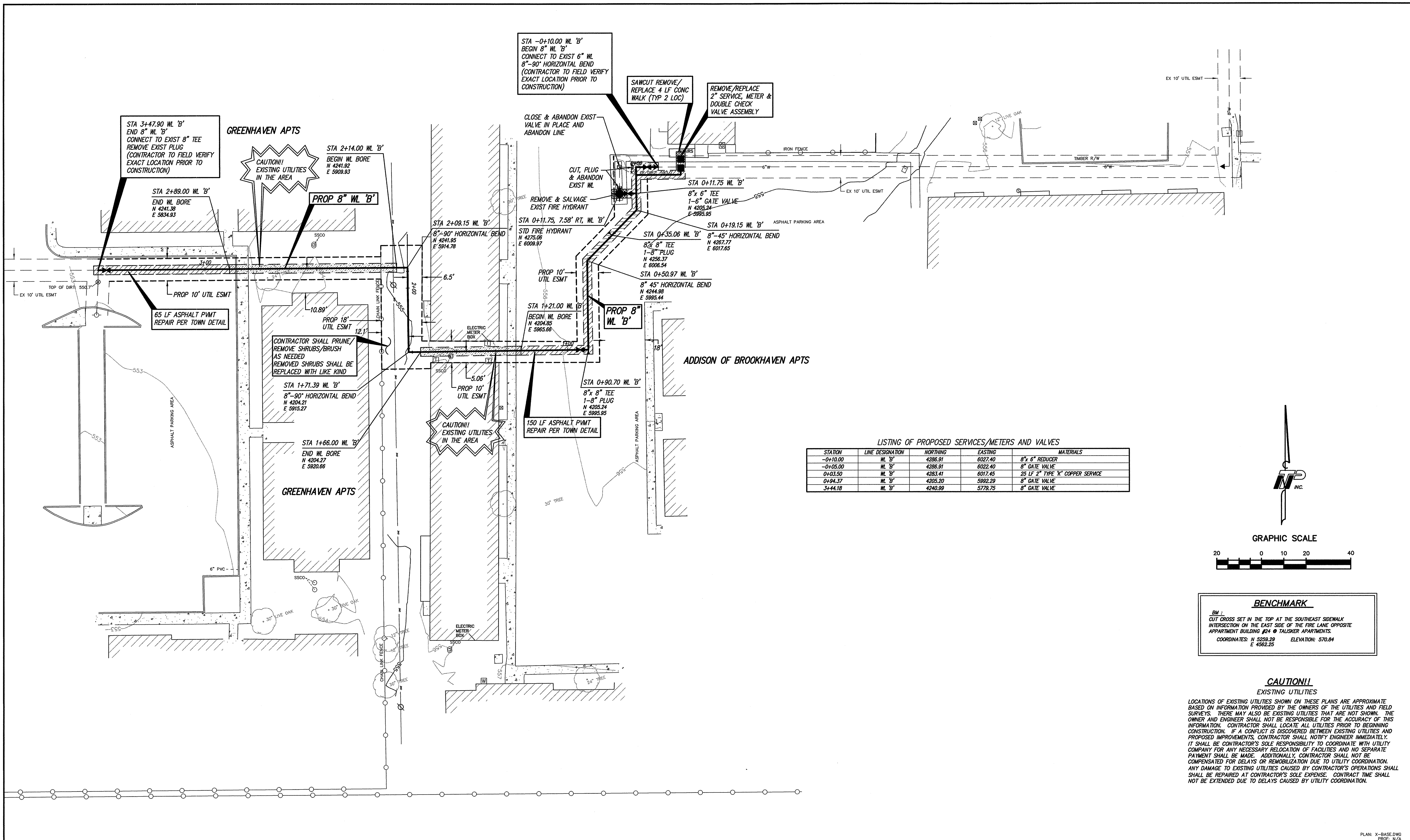
1100 Macon Street Fort Worth, Texas 76102 (817) 336-5773  
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TOWN OF ADDISON, TEXAS  
GREENHAVEN APARTMENTS  
WATER LINE IMPROVEMENTS

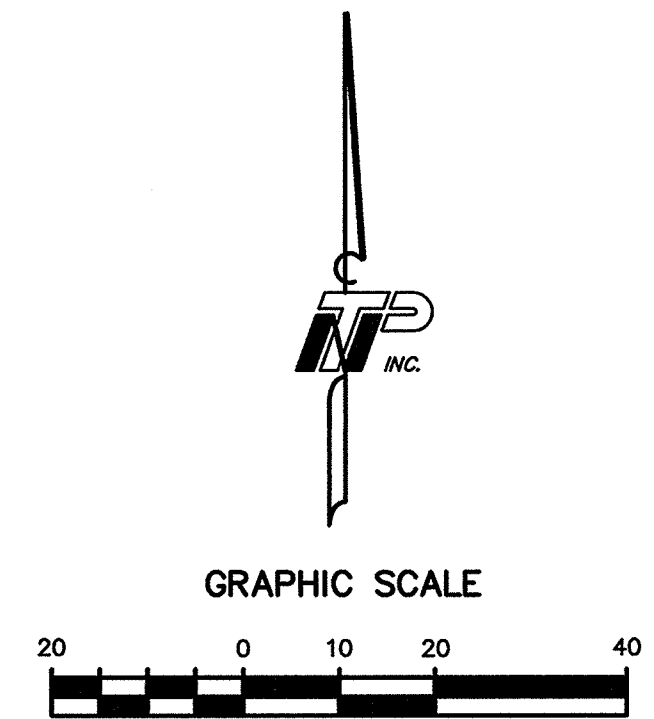
WATER LINE 'A' STA 0+97.43 TO 5+79.91

TNP PROJECT  
ADD04305  
SHEET  
**7**  
OF  
11



LISTING OF PROPOSED SERVICES/METERS AND VALVES

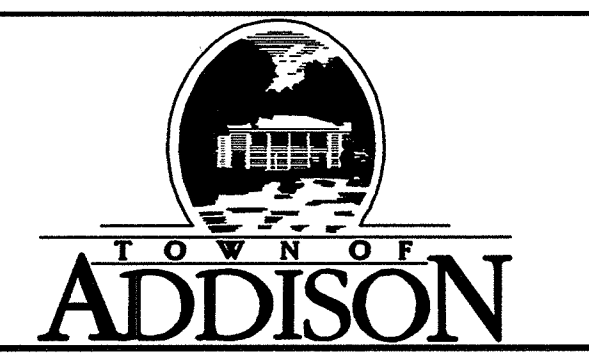
STATION	LINE DESIGNATION	NORTHING	EASTING	MATERIALS
-0+10.00	WL 'B'	4286.91	6027.40	8" 6" REDUCER
-0+05.00	WL 'B'	4286.91	6022.40	8" GATE VALVE
0+03.50	WL 'B'	4283.41	6017.45	25 LF 2" TYPE 'K' COPPER SERVICE
0+04.37	WL 'B'	4205.20	5992.29	8" GATE VALVE
3+44.18	WL 'B'	4240.99	5779.75	8" GATE VALVE



**BENCHMARK**  
 BM :  
 CUT CROSS SET IN THE TOP AT THE SOUTHEAST SIDEWALK  
 INTERSECTION ON THE EAST SIDE OF THE FIRE LANE OPPOSITE  
 APARTMENT BUILDING #24 @ TALISKER APARTMENTS.  
 COORDINATES: N 3259.29 E 4892.25 ELEVATION: 570.84

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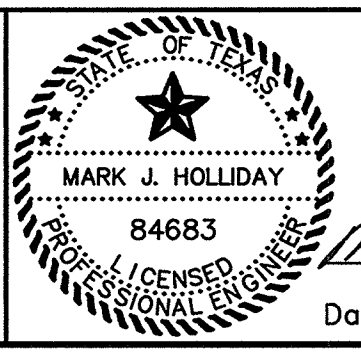
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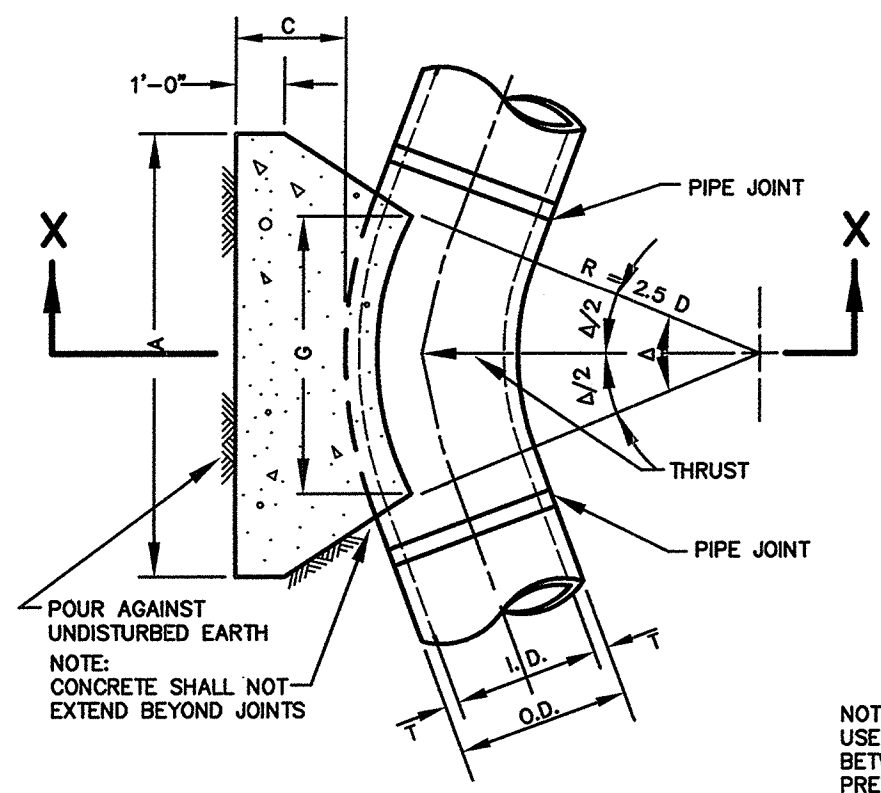
Mark J. Holliday P.E.  
 Date: 11-14-05

TOWN OF ADDISON, TEXAS  
 GREENHAVEN APARTMENTS  
 WATER LINE IMPROVEMENTS  
 WATER LINE 'B'  
 STA -0+10.00 TO 3+47.90

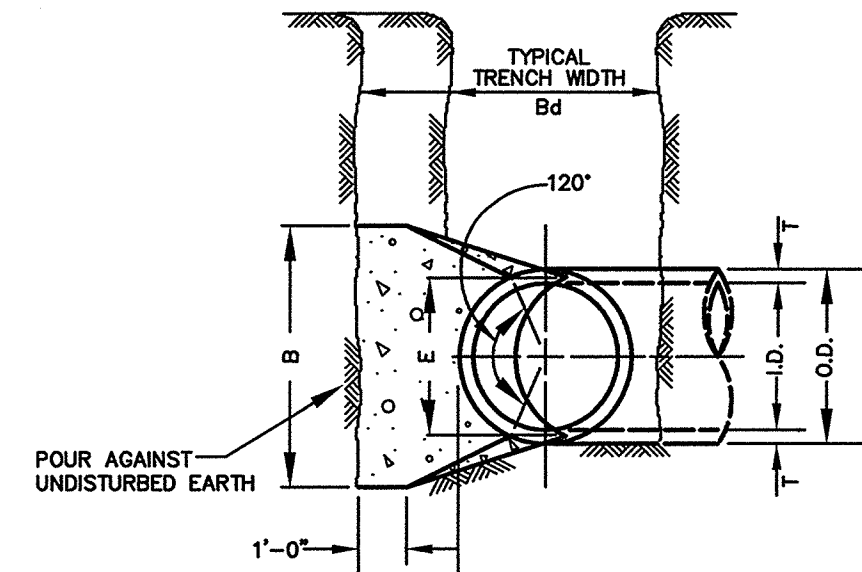
TNP PROJECT  
 ADD04305  
 SHEET  
**8**  
 OF  
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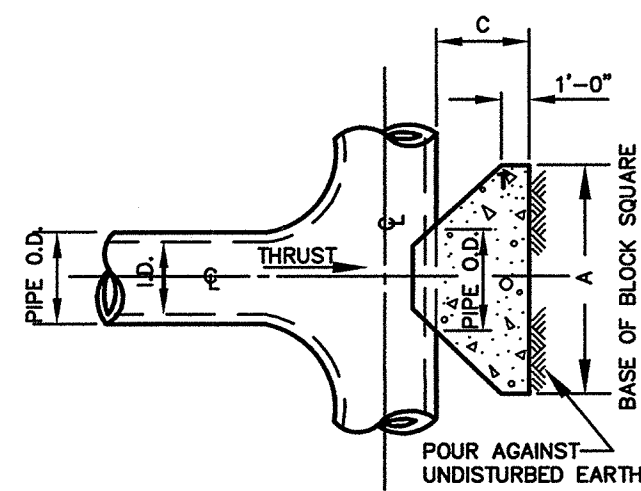


**HORIZONTAL THRUST BLOCK**  
N.T.S.



**SECTION X-X**  
N.T.S.

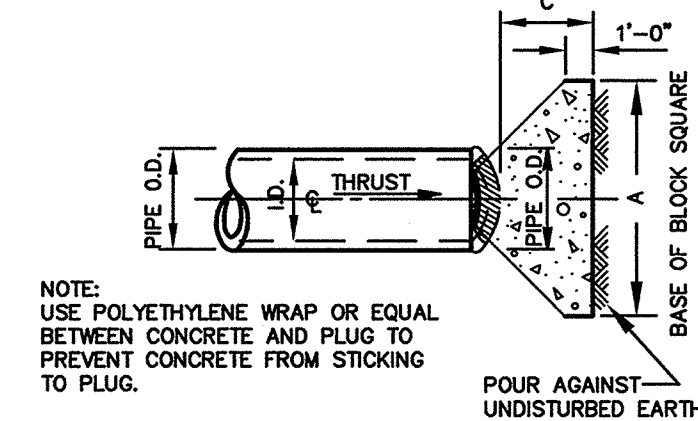
I.D. (N)	Δ=11.25'			Δ=22.50'			Δ=45'			Δ=90'								
	C FT.	E FT.	F FT.	A FT.	B FT.	VOL. C.Y.	G FT.	A FT.	B FT.	VOL. C.Y.	G FT.	A FT.	B FT.	VOL. C.Y.				
6/8	1.5	0.9	0.4	1.0	1.5	0.1	0.8	1.5	1.5	0.1	1.5	2.0	2.0	0.2	2.7	5.0	1.5	0.4



**PLAN OF TEE THRUST BLOCK**  
N.T.S.

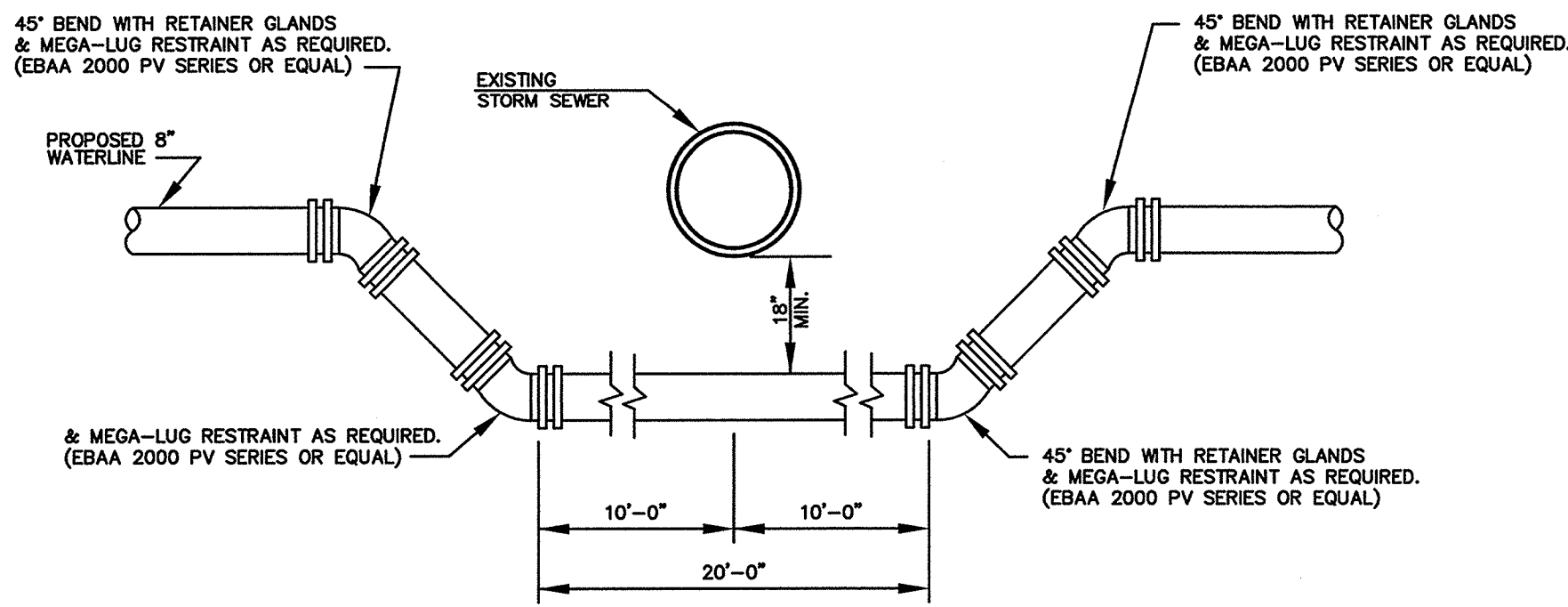
PLUG & TEE THRUST BLOCK

I.D. (N)	C FT.	A FT.	VOL. C.Y.
6/8	1.5	2.5	0.3
10/12	1.5	3.5	0.6
16/18	2.0	5.5	1.6
20	2.0	6.0	1.9
24	2.5	7.0	3.1
30	3.0	7.5	4.1

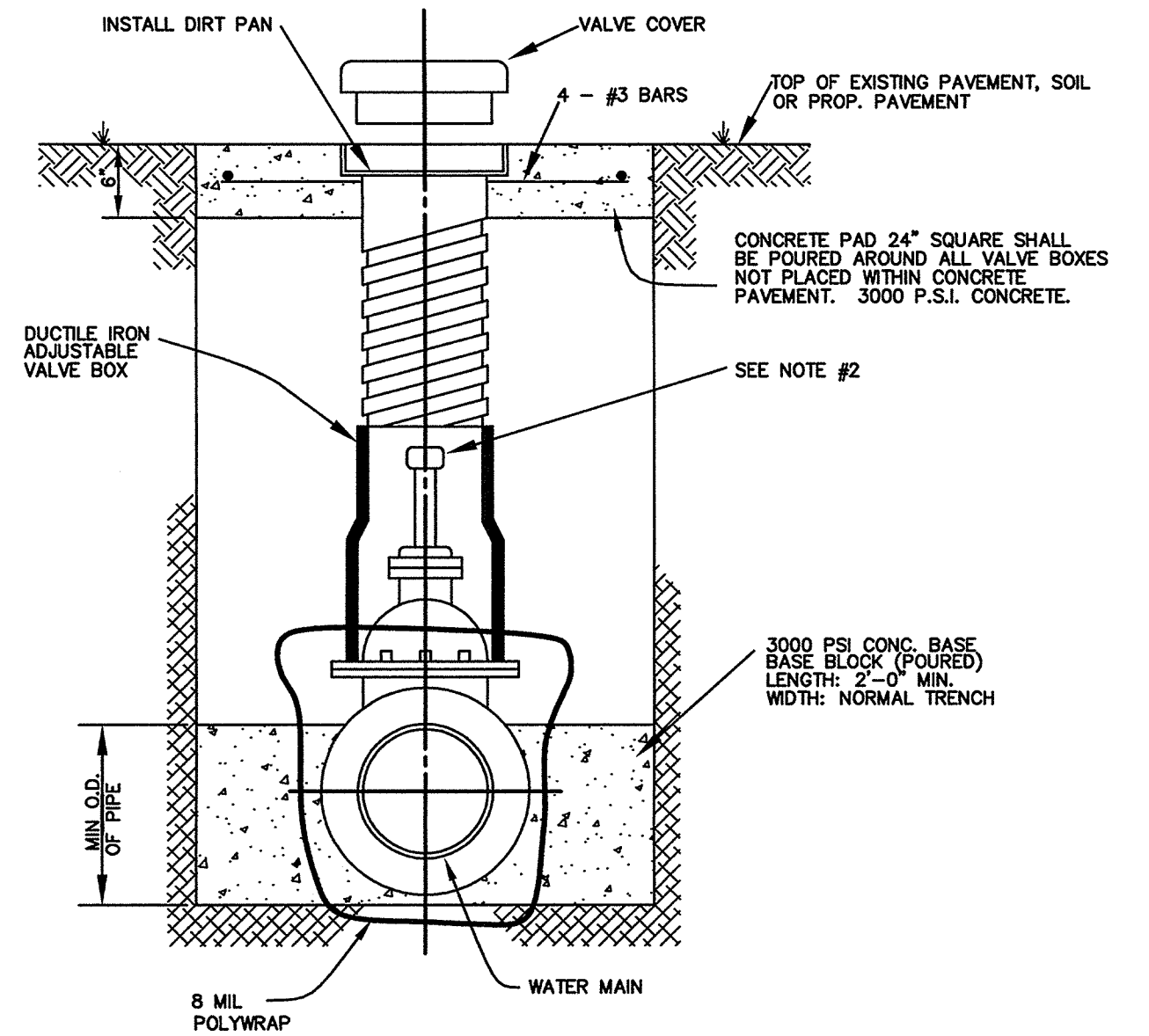


**PLAN OF PLUG THRUST BLOCK**  
N.T.S.

- GENERAL NOTES FOR ALL THRUST BLOCKS:
- ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. (EXCEPT 30" I.D. - 150 P.S.I.).
  - CONCRETE FOR BLOCKING SHALL BE CLASS B, 2000 P.S.I. CONCRETE.
  - DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE C.M. THE NET VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN IN TABLES.

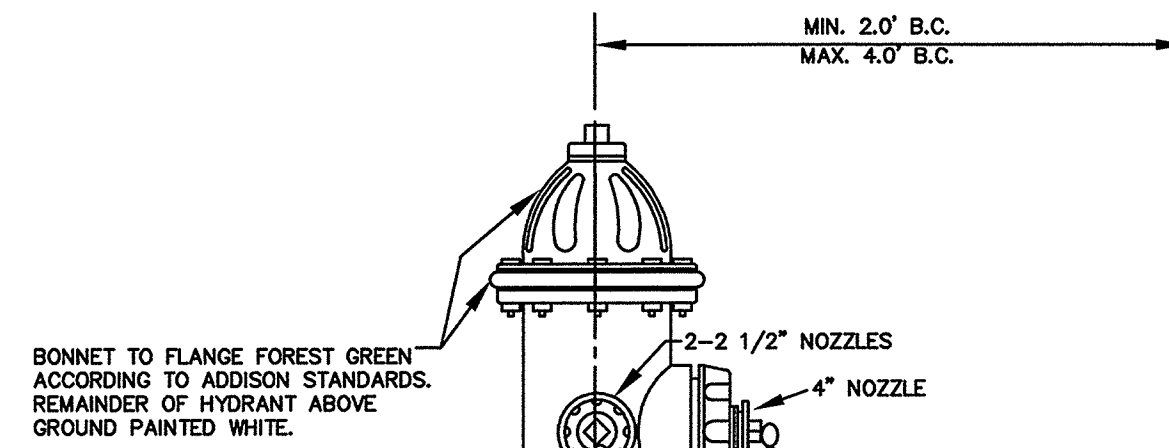


**WATER LINE RELOCATION AT STORM SEWER CROSSING**  
**TYPICAL SECTION**  
N.T.S.

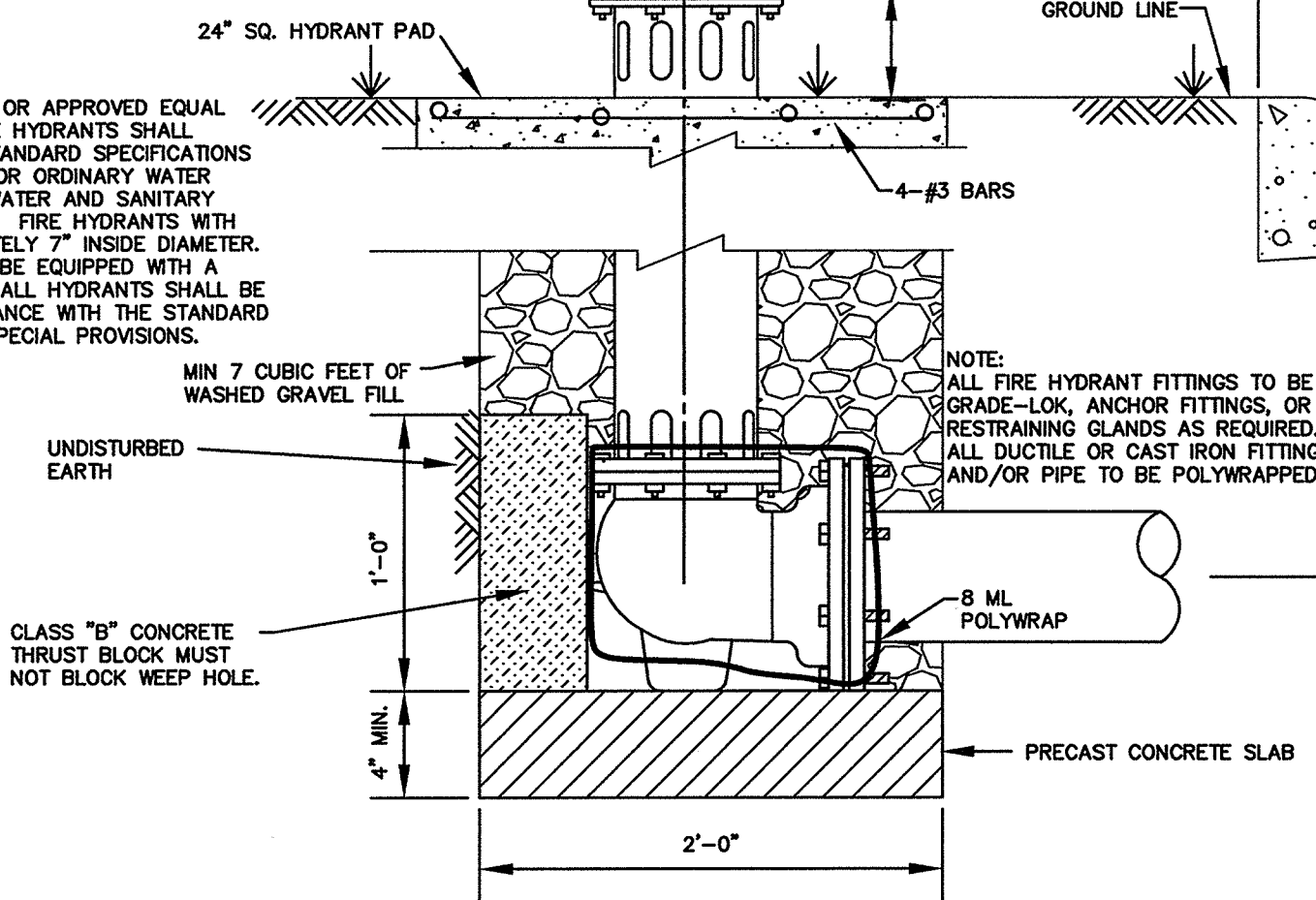


- NOTE:
- GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF. ALL VALVES SHALL BE "MUELLER" OR EQUAL.
  - A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4 FEET OF VALVE BOX I.D. MANUFACTURED VALVE STACK DUCTILE IRON PIPE TO BE USED FOR EXTENSION GREATER THAN 4". BELL END OF STACK TO BE FITTED OVER VALVE, AND VALVE STACK IS TO BE POLYWRAPPED.
  - VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK. BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.
  - VALVE COVERS SHALL BE MARKED "WATER".

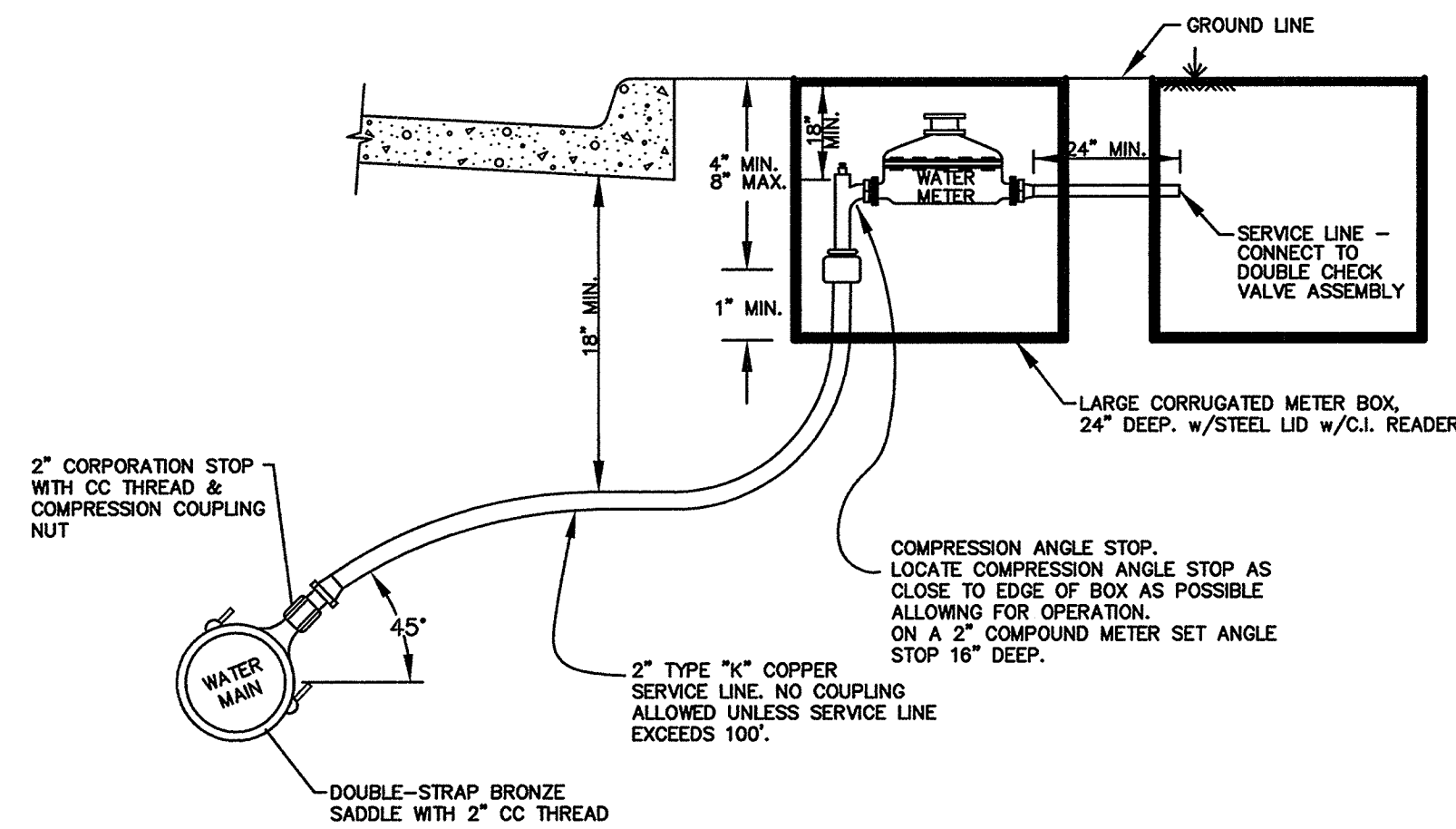
**TYPICAL VALVE SETTING & BOX**  
N.T.S.



NOTE: MUELLER "CENTURIAN" OR APPROVED EQUAL IN GENERAL. ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE FOR WATER AND SANITARY SEWER IMPROVEMENTS. FIRE HYDRANTS WITH A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL HYDRANTS SHALL BE APPROVED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.



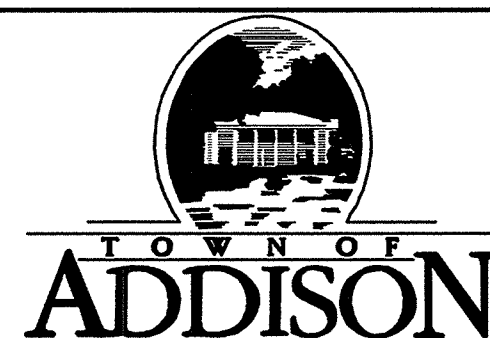
**TYPICAL FIRE HYDRANT INSTALLATION**  
N.T.S.



**TYPICAL SERVICE CONNECTION WITH METER BOX**  
N.T.S.

NOTE: WATER SERVICES SHALL NOT BE CONNECTED TO FIRE HYDRANT LINES. ALL MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

NO.	REVISION	BY	DATE



SCALE

HORIZ	N/A
VERT	N/A
DATE	NOV 2005

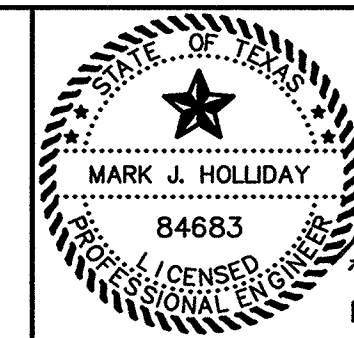


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MARK J. HOLLIDAY  
84683  
P.E.  
Date: 1/14/05

TOWN OF ADDISON, TEXAS	TNP PROJECT ADD04305
GREENHAVEN APARTMENTS	SHEET
WATER LINE IMPROVEMENTS	<b>10</b>
MISCELLANEOUS DETAILS 1	OF 11

