PLANS FOR THE CONSTRUCTION OF

PAVING, DRAINAGE & UTILITY IMPROVEMENTS

BELLA LANE Sta 20+63.50 to Sta 31+74.50

FOR

VITRUVIAN PARK PUBLIC INFRASTRUCTURE - PHASE 2

TOWN OF ADDISON, TEXAS

PUBLIC WORKS # 2010-08

Addison!®

JOE CHOW
MAYOR

DON DASEKE
MAYOR PRO TEMPORE

BLAKE CLEMENS
DEPUTY MAYOR PRO TEMPORE

NEIL RESNIK
ROGER MELLOW
KIMBERLY LAY
BIANCA NOBLE
COUNCIL MEMBERS

RON WHITEHEAD
CITY MANAGER

LEA DUNN
DEPUTY CITY MANAGER

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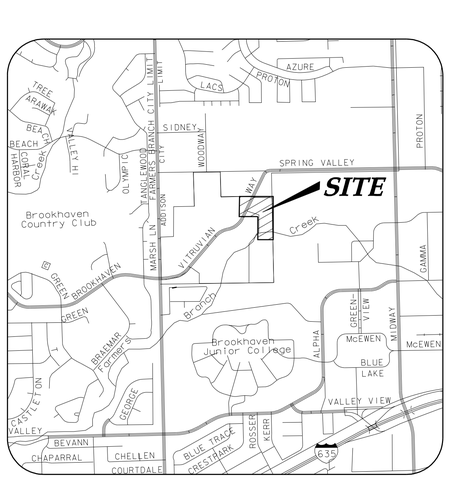

VICINITY MAP
NOT TO SCALE
(MAPSCO GRID 13 & 14)

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icon Consulting Engineers, Inc.
Civil Engineers- Designers- Planners
ENGINEERING FIRM REGISTRATION NUMBER F-9007

FEBRUARY 01, 2011

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER
2/11/11

ICON PROJECT #5029-03

RECORD DRAWINGS 06/13/12

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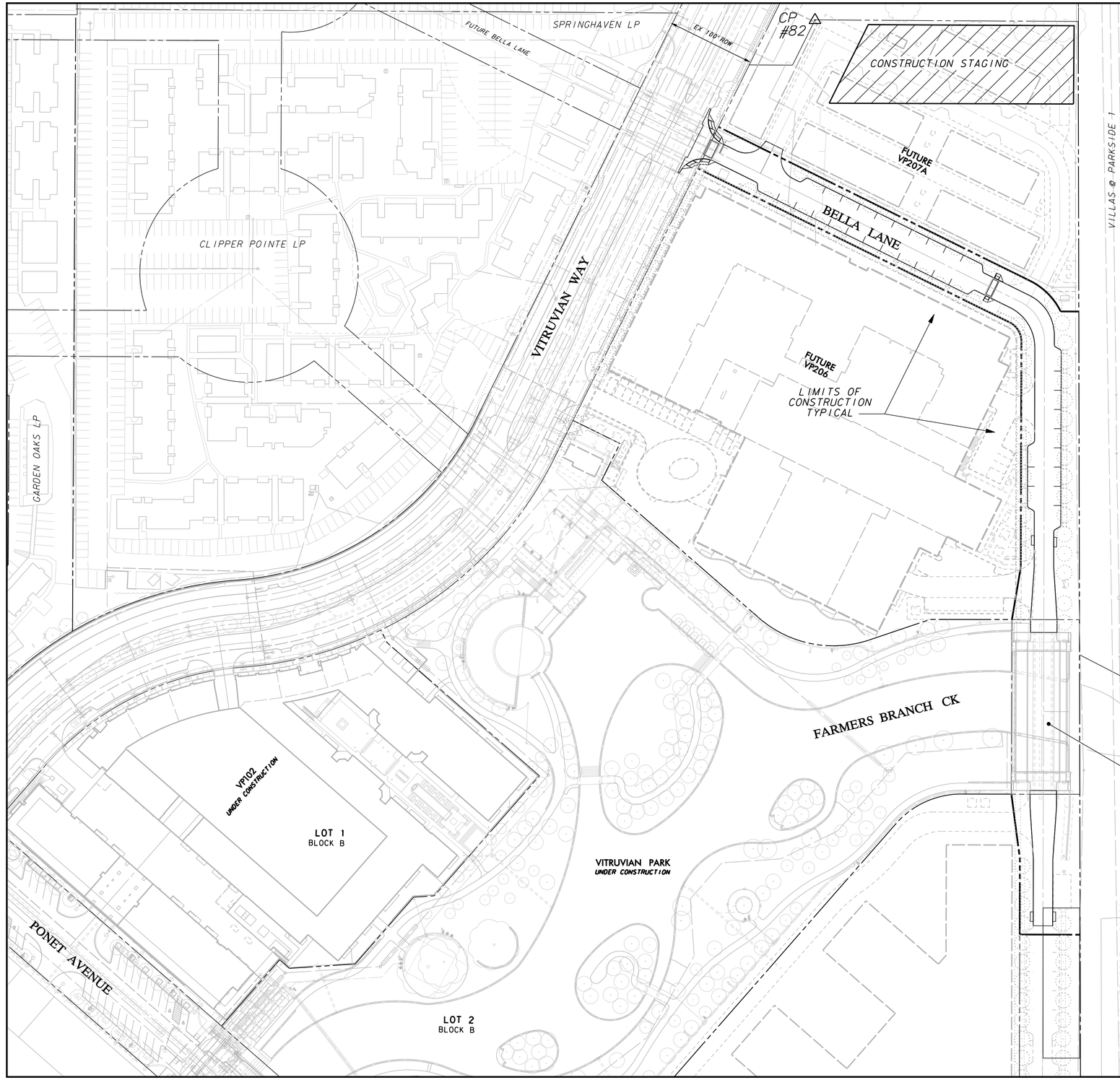
PAVING, DRAINAGE & UTILITY IMPROVEMENTS – BELLA LANE



NORTH

0 30 60 90 120
GRAPHIC SCALE IN FEET
SCALE: 1"=60'

CP #54	CP #80	CP #82
CPIR 5/8"YC # 2509J	IRF 1/2"	IRF 1/2"
N 7549.40	N 9828.79	N 9391.52
E 11283.24	E 12241.73	E 12074.82
ELEV 549.86	ELEV 582.65	ELEV 573.99

CP #63	CP #81
IRF 3/8"	IRF 1/2" HZ
N 9935.76	N 9915.07
E 11998.95	E 12375.13
ELEV 583.02	ELEV 584.42

BM #1 REF. ELEVATION = 559.47
SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN END NOSE, MARSH LANE 112'? NORTH OF VITRUVIAN WAY.

BM #2 REF. ELEVATION = 547.84
SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION OF VITRUVIAN WAY AND MARSH LANE.

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE

Addison! TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

OVERALL PLAN & PROJECT CONTROL

icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
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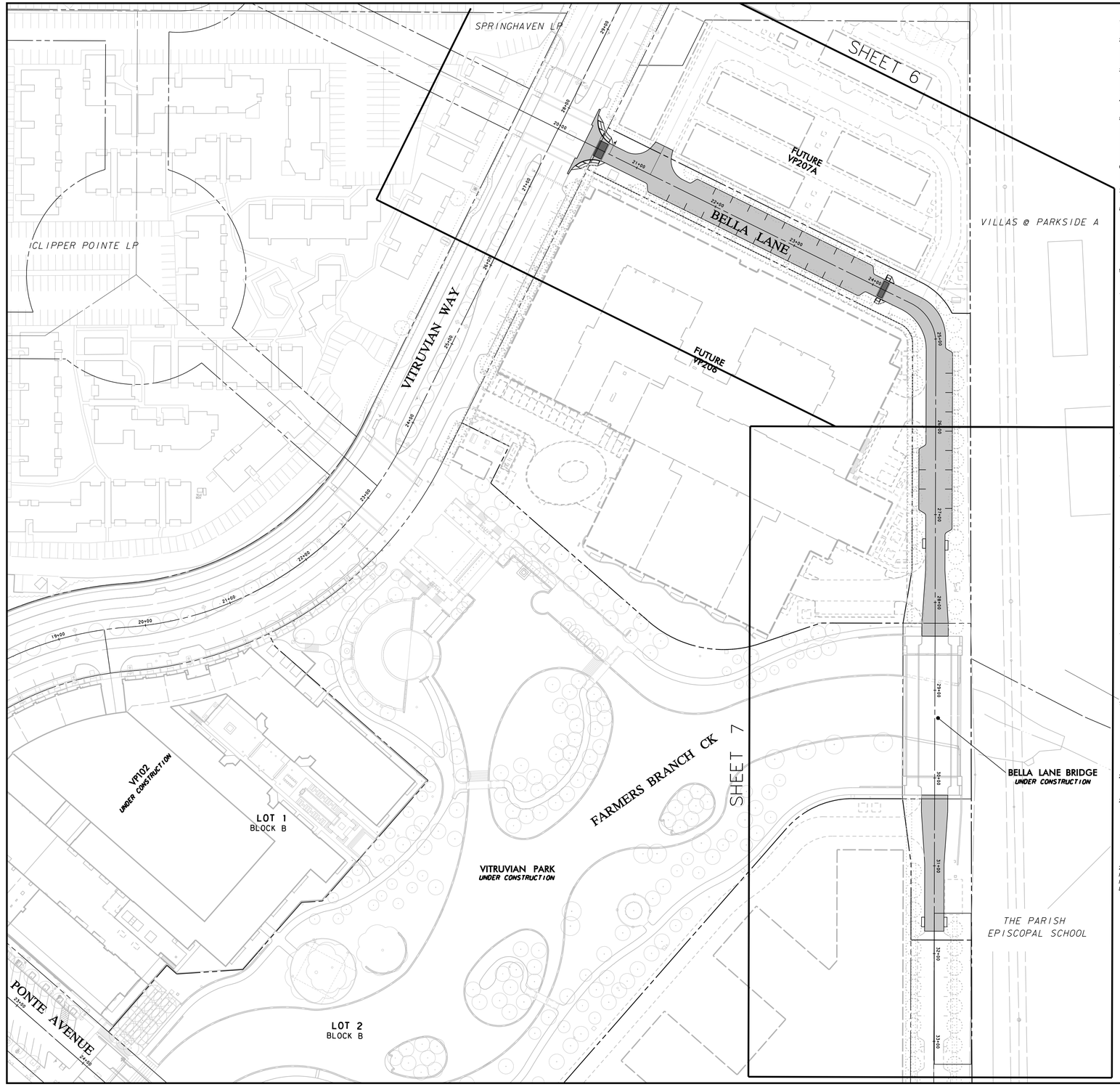
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW # 2010-08	2

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12



GRADING & PAVING GENERAL NOTES

1. *REFER TO SHEET 3 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THIS PROJECT.*
2. *ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD SPECIFICATIONS AS PUBLISHED BY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, AND ANY AND ALL AMENDMENTS BY THE TOWN OF ADDISON, AS WELL AS STANDARD CONSTRUCTION DETAILS OF THE TOWN OF ADDISON.*
3. *PRIOR TO COMMENCING CONSTRUCTION, THE TOWN OF ADDISON, THE CONSULTING ENGINEERS, THE SUCCESSFUL CONTRACTOR, UTILITY COMPANIES, AND ANY OTHER AFFECTED PARTIES, SHALL CONVENE FOR A PRE-CONSTRUCTION CONFERENCE AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.*
4. *THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM THE TOWN OF ADDISON PRIOR TO WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.*
5. *IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ANY PUBLIC UTILITY COMPANIES FOR LOCATION OF EXISTING FACILITIES IN OR NEAR THE WORK AREAS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLOWING:*

TOWN OF ADDISON (WATER, SEWER, SIGNALS)	*ATMOS ENERGY (GAS)*
ONCOR ELECTRIC DELIVERY	*VERIZON / MCI*
AT&T (SOUTHWESTERN BELL)	*TIME-WARNER CABLE*

6. *THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER (SIX SETS EACH), FOR APPROVAL OF ALL MATERIALS TO BE ADDED TO THE PUBLIC INFRASTRUCTURE, PRIOR TO INCORPORATING MATERIALS INTO THE JOB.*
7. *THE CONTRACTOR SHALL EXECUTE AN "EXCAVATION PERFORMANCE AND MAINTENANCE BOND" PRIOR TO WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.*
8. *THE CONTRACTOR SHALL PROVIDE A MAINTENANCE BOND FOR PUBLIC INFRASTRUCTURE WORK IN THE FOLLOWING AMOUNTS:*
   - *100% FOR VALUATIONS LESS THAN OR EQUAL TO $5,000.*
   - *$5,000 FOR VALUATION GREATER THAN $5,000. AND LESS THAN $50,000.*
   - *10% FOR VALUATIONS GREATER THAN $50,000.*

   BONDS SHALL BE FOR A PERIOD OF TWO YEARS BEGINNING WITH THE DATE OF FINAL ACCEPTANCE BY THE TOWN.
9. *THE CONTRACTOR SHALL FULLY COMPLY WITH, AND SUPPLEMENT AS NECESSARY, THE CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN WHILE CONDUCTING HIS ACTIVITIES ON THIS PROJECT.*
10. *THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT WILL APPROVE AND/OR DETERMINE THE TRAFFIC CONTROL PLAN AND WORKING HOURS. CONTACT THE CITY ENGINEER AT (972) 450-2857 OR THE PUBLIC WORKS INSPECTOR AT (972) 450-2871. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, AND SUPPLEMENT AS NECESSARY, THE TRAFFIC CONTROL MEASURES ON THIS PROJECT, INCLUDING PROVIDING ADEQUATE FLAGMEN, SIGNAGE, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION IN ACCORDANCE WITH THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS OR PROVIDE AN ALL-WEATHER DETOUR AROUND THE CONSTRUCTION SITE, INCLUDING PUBLIC NOTIFICATION AND SIGNING.*
11. *TEMPORARY OR PERMANENT BARRICADES SHALL REMAIN AT ALL POINTS OF INGRESS OR EGRESS TO PREVENT PUBLIC USE UNTIL THE WORK RECEIVES FINAL ACCEPTANCE.*
12. *THE TOWN OF ADDISON WILL PROVIDE A GEOTECHNICAL LABORATORY TO PERFORM APPROPRIATE TESTING DURING CONSTRUCTION ACTIVITIES. ALL EARTHWORK OPERATIONS SHALL BE OBSERVED AND TESTED ON A CONTINUING BASIS BY THE GEOTECHNICAL ENGINEER FOR CONFORMANCE WITH THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL STUDY WHICH IS MADE A PART OF THESE CONSTRUCTION DOCUMENTS. ANY TEST THAT FAILS TO MEET CITY REQUIREMENTS SHALL BE RETESTED AT THE CONTRACTOR'S EXPENSE.*
13. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION, INCLUDING PROVIDING ALL TEMPORARY STRUCTURES OR IMPROVEMENTS AS NESCESSARY FOR THE SAFETY OF THE PUBLIC.*
14. *ANY ADJACENT PROPERTIES AFFECTED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.*
15. *AREAS TO BE PAVED AND ALL AREAS THAT ARE TO RECEIVE FILL MATERIAL SHALL BE STRIPPED OF VEGETATION, TREES, ROOTS, STUMPS, DEBRIS, AND OTHER ORGANIC MATERIAL. THE DEPTH OF STRIPPING IS ESTIMATED TO BE ON THE ORDER OF FOUR (4) INCHES IN ORDER TO REMOVE THE SURFACE SOIL CONTAINING ORGANIC MATERIAL. THE ACTUAL STRIPPING DEPTH SHALL BE BASED ON FIELD OBSERVATIONS. STRIPPED TOPSOIL SHALL BE STOCKPILED IN A LOCATION ON-SITE APPROVED BY THE ENGINEER. ALL TREES, INCLUDING STUMPS AND ROOT SYSTEMS, VEGETATION, DEBRIS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OFF-SITE. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. ALL COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.*
16. *BURNING SHALL NOT BE PERMITTED ON THE PROJECT SITE UNLESS APPROVED IN WRITING BY THE GOVERNING AUTHORITIES.*
17. *UPON COMPLETION OF STRIPPING OPERATIONS, AND PRIOR TO PLACEMENT OF ANY FILL MATERIALS, THE STRIPPED AREAS SHOULD BE OBSERVED TO DETERMINE IF ADDITIONAL EXCAVATION IS REQUIRED TO REMOVE WEAK OR OTHERWISE OBJECTIONABLE MATERIALS THAT WOULD ADVERSELY AFFECT THE FILL PLACEMENT. THE SUBGRADE SHOULD BE FIRM AND ABLE TO SUPPORT CONSTRUCTION EQUIPMENT WITHOUT DISPLACEMENT. SOFT OR YIELDING SUBGRADE SHOULD BE CORRECTED AND MADE STABLE BEFORE CONSTRUCTION PROCEEDS. PROOF ROLLING SHOULD BE PERFORMED USING A HEAVY PNEUMATIC TIRE ROLLER, LOADED DUMP TRUCK, OR SIMILAR PIECE OF EQUIPMENT WEIGHING 25 TONS. THE PROOF ROLLING OPERATIONS SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.*
18. *WHEN CLAY OR OTHER UNSTABLE MATERIAL IS PRESENT IN AREAS OF PROPOSED PAVED AREAS, THE GEOTECHNICAL ENGINEER SHALL OBSERVE THE STABILITY OF ANY EXISTING CLAY OR WEATHERED MATERIAL THAT IS PRESENT IN THE SUBBASE, AND SHALL DETERMINE WHETHER ADDITIONAL EXCAVATION OF THESE MATERIALS WILL BE REQUIRED. IF THIS MATERIAL IS DEEMED SUITABLE FOR SUBBASE MATERIAL, THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF SIX (6) INCHES, ITS MOISTURE CONTENT ADJUSTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER, AND THEN RE-COMPACTED TO BETWEEN NINETY-FIVE (95) PERCENT TO ONE HUNDRED (100) PERCENT OF THE OPTIMUM DENSITY DETERMINED BY THE STANDARD PROCTOR TEST, ASTM D - 698 PRIOR TO PLACEMENT OF FILL MATERIALS.*
19. *ALL SOILS USED FOR CONTROLLED FILL SHOULD BE FREE OF ROOTS, VEGETATION, AND OTHER DELETERIOUS OR UNDESIRABLE MATTER. ROCKS LESS THAN 3 INCHES IN LARGEST DIMENSION WILL BE ALLOWED AS ACCEPTABLE FILL MATERIAL. SOILS IMPORTED FROM OFF-SITE FOR USE AS FILL SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER. THE FILL MATERIAL SHOULD BE PLACED IN LEVEL, UNIFORM LIFTS, WITH EACH LIFT COMPACTED TO THE MINIMUM DRY DENSITY WITHIN THE COMPACTION SOIL MOISTURE RANGES RECOMMENDED. THE LOOSE LIFT THICKNESS SHOULD NOT EXCEED 10 INCHES. EACH LAYER SHOULD BE PROPERLY PLACED, MIXED, SPREAD, AND COMPACTED TO BETWEEN NINETY-FIVE (95) AND ONE HUNDRED (100) PERCENT OF STANDARD PROCTOR DENSITY AT 0% TO 3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 698.*
20. *THE PROPOSED CONTOURS INDICATED ON THE GRADING PLAN ARE FINISHED GRADES AND ARE SHOWN AT ONE-FOOT INTERVALS. SPOT ELEVATIONS SHOWN IN PAVED AREAS ARE TOP OF PAVEMENT, UNLESS NOTED OTHERWISE.*
21. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR MASS GRADING OF THE SITE TO THE FOLLOWING ELEVATIONS:*
   - *8" BELOW FINISHED GRADE FOR ALL STREET PAVEMENT AREAS.*
   - *4" BELOW FINISHED GRADE FOR ALL SIDEWALK PAVEMENT AREAS.*
   - *6" BELOW FINISHED GRADE FOR ALL LANDSCAPE AREAS.*

   A TOLERANCE OF +/- 0.10 FEET OF THE FINISHED GRADE WILL BE ALLOWED FOR ALL AREAS UNDER PROPOSED PAVEMENT. ALL LANDSCAPE AREAS ARE TO BE GRADED WITHIN +/- 0.30 FEET OF THE FINISHED GRADE.
22. *ALL LANDSCAPE AREAS AND OTHER DISTURBED AREAS WITHIN THE LIMITS OF THE PROPERTY NOT DESIGNATED TO BE PAVED SHALL RECEIVE SIX (6) INCHES OF TOPSOIL. REFER TO THE EROSION AND SEDIMENT CONTROL PLANS AND/OR LANDSCAPE PLANS FOR LIMITS OF TOPSOIL PLACEMENT.*
23. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING THE EARTHWORK QUANTITIES BASED ON THE EXISTING AND PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ON THESE PLANS. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED EXCAVATION AND BID ON A LUMP SUM BASIS, UNLESS NOTED OTHERWISE.*
24. *THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, FENCES, TREES, SHRUBS, UTILITY SERVICES, BUILDING FOUNDATIONS AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW THE GROUND, THE COST OF WHICH SHALL BE INCLUDED IN THE CONTRACT AMOUNT.*
25. *THE CONTRACTOR SHALL VERIFY THE ELEVATION CONFIGURATION, AND ANGULATION OF EXISTING PAVEMENT PRIOR TO CONSTRUCTION OF TIE-IN MATERIALS. WHERE PROPOSED CONCRETE PAVEMENT TO EXISTING CONCRETE PAVEMENT IS TO BE CONSTRUCTED BY THE CONTRACTOR, AT LEAST 15" OF REINFORCING STEEL SHALL BE EXPOSED FROM THE EXISTING PAVEMENT, OR THE CONTRACTOR SHALL PROVIDE HORIZONTAL DOWEL BARS PER THE DETAILS.*
26. *NO PERSON SHALL OPEN, TURN OFF, INTERFERE WITH, ATTACH ANY HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE TOWN OF ADDISON UNLESS DULY AUTHORIZED TO DO SO BY THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT (972-450-2871).*
27. *ALL EXISTING AND PROPOSED IMPROVEMENTS (MANHOLE RIMS, CLEAN-OUTS, FIRE HYDRANTS, VALVE BOXES, WATER METERS AND VAULTS, ETC.) SHALL BE ADJUSTED TO FINAL FINISHED GRADE BY THE CONTRACTOR AT THE TIME OF PAVING.*
28. *PREPARATION OF SUBGRADE UNDER PAVED AREAS SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF ADDISON SPECIFICATIONS OR THE GEOTECHNICAL REPORT. THE MORE RESTRICTIVE REQUIREMENTS SHALL APPLY. PREPARATION OF THE SUBGRADE FOR PAVING WITHIN RIGHT-OF-WAY, STREET USE EASEMENTS AND/OR FIRE LANES SHALL NOT BE INITIATED UNTIL ALL TESTING OF UNDERGROUND UTILITIES HAS BEEN COMPLETED AND VERIFIED TO MEET THE SPECIFICATIONS AND AUTHORIZATION TO PROCEED HAS BEEN RECEIVED FROM THE INSPECTOR.*
29. *ALL FILL UNDER PAVEMENT AREAS SHALL BE COMPACTED TO A DENSITY OF AT LEAST NINETY-FIVE (95) PERCENT STANDARD PROCTOR AS PER ASTM D698 AT OR ABOVE OPTIMUM MOISTURE CONTENT (+-3%). LIFTS SHALL BE AS SPECIFIED IN THE GEOTECHNICAL REPORT AND AS APPROVED BY THE TOWN OF ADDISON. ALL FILL MATERIAL SHALL BE TESTED AS INSTALLED AND CERTIFIED BY AN APPROVED SOILS LABORATORY.*
30. *THE SUBGRADE SHALL BE PROOF-ROLLED WITH HEAVY PNEUMATIC EQUIPMENT. ANY SOFT OR PUMPING AREAS SHALL BE EXCAVATED TO FIRM SUBGRADE AND BACKFILLED AND RE-COMPACTED IN CONFORMANCE WITH THE GEOTECHNICAL REPORT. PAVEMENT SUBGRADE SHOULD NOT BE ALLOWED TO RETAIN WATER. WET MATERIAL SHALL BE REMOVED TO DRY, SOUND MATERIAL AND APPROPRIATE DENSITY ACHIEVED PRIOR TO PAVING OPERATIONS.*
31. *CONCRETE SHOULD BE PORTLAND CEMENT CONCRETE, CONFORMING TO THE REQUIREMENTS OF TxDOT ITEM 421, PORTLAND CEMENT CONCRETE CLASS "P".*
32. *HYDRATED LIME (IF REQUIRED) SHALL MEET THE REQUIREMENTS OF TxDOT ITEM 260. LIME TREATMENT USED AS SUBGRADE. LIME SHALL BE APPLIED AT THE RATE AND THICKNESS AS RECOMMENDED IN THE GEOTECHNICAL REPORT, THOROUGHLY MIXED AND BLENDED WITH THE SUBGRADE AND UNIFORMLY COMPACTED TO A MINIMUM OF 100 PERCENT OF STANDARD PROCTOR (ASTM D698) DETERMINED BY THAT TEST. LIME STABILIZATION SHALL EXTEND ONE (1) FOOT OUTSIDE THE LIMITS OF THE PAVED AREA. IT SHOULD BE PROTECTED AND MAINTAINED IN A MOIST CONDITION UNTIL THE PAVEMENT IS PLACED.*
33. *THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH TRENCHING OPERATIONS FOR OTHER UTILITIES INCLUDING GAS, TELEPHONE, AND ELECTRIC SERVICES, LANDSCAPE IRRIGATION CONDUITS, LIGHTING CONDUITS, STREETSCAPE IMPROVEMENTS, ETC. AND SHALL PROVIDE BLOCKOUTS AND/OR FINAL ADJUSTMENT TO FINISH GRADE FOR ALL IMPROVEMENTS, EXISTING AND PROPOSED, WITHIN THE LIMITS OF THE PAVING WORK.*
34. *ALL CURB SHOWN IS TO BE SIX (6) INCHES HIGH.*
35. *EXPANSION JOINT MATERIAL SHALL EXTEND COMPLETELY THROUGH THE CURB.*
36. *ALL REINFORCING BARS SHALL BE GRADE 40 KSI DEFORMED REINFORCING STEEL. SIZE AND SPACING SHALL BE IN ACCORDANCE WITH THE DETAILS. WHERE BARS ARE SPLICED, A 30" DIAMETER LAP SHALL BE USED.*
37. *ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORTS.*
38. *THE CONTRACTOR SHALL PROCEED WITH PAVING NO MORE THAN SEVENTY-TWO (72) HOURS AFTER DENSITY/MOISTURE TESTS HAVE BEEN TAKEN AND PASSED BY THE TESTING FIRM. COMPIES OF THE TEST RESULTS SHALL BE FURNISHED TO THE CITY. IN THE EVENT PAVING OPERATIONS HAVE NOT COMMENCED WITHIN THE SEVENTY-TWO (72) HOUR LIMIT, A RETEST SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.*
39. *CONCRETE SHALL NOT BE PLACED WHEN THE TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AND FALLING, BUT MAY BE PLACED WHEN THE TEMPERATURE IS ABOVE 35 DEGREES AND RISING. THE TEMPERATURE READING SHALL BE TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.*
40. *CONSTRUCTION OF SIDEWALKS, WHEELCHAIR RAMPS AND ACCESSIBLE ROUTES SHALL BE IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND/OR THE AMERICANS DISIBILITY ACT (ADA). ALL CONCRETE FOR HANDICAP RAMPS SHALL HAVE TRUNCATED DOMES.*
41. *PAVEMENT MARKINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE TEXAS "UNIFORM TRAFFIC MANUAL FOR PAVEMENT MARKINGS". FIRE LANES SHALL BE STRIPED IN ACCORDANCE WITH THE TOWN OF ADDISON'S REQUIREMENTS. ALL HANDICAP SYMBOLS, SIGNAGE AND PAVEMENT MARKINGS SHALL COMPLY WITH TAS AND/OR ADA STANDARDS.*
42. *MEMBRANE CURING TYPE 2, WHITE PIGMENTED, SHALL BE USED FOR CURING ALL CONCRETE SURFACES IMMEDIATELY AFTER FINISHING OF SURFACES AND SHALL BE IN ACCORDANCE WITH THE TxDOT ITEM #526.*
43. *THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO ALL EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.*
44. *THE CONTRACTOR SHALL PROVIDE PAVEMENT JOINTING IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:*
   - *A. SAW CUTTING SHALL BE DONE WITHIN EIGHT (8) HOURS OF POUR OR AS SOON AS CONCRETE CAN SUPPORT WEIGHT. PROVIDE A NEAT CUT WHICH IS TRUE IN ALIGNMENT.*
   - *B. CONTRACTOR SHALL MARK JOINT LOCATIONS AT THE CENTERLINE OF DOWEL LENGTH DURING HIS PAVING OPERATIONS.*
   - *C. ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.*
   - *D. RADIAL JOINTS SHALL BE NO SHORTER THAN EIGHTEEN (18) INCHES.*
   - *E. ALL CONSTRUCTION JOINTS SHALL BE SAWN, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED.*
   - *F. ODD SHAPED PANELS SHALL BE REINFORCED WITH #3 BARS AT 18" EACH WAY. AN ODD SHAPED PANEL IS CONSIDERED TO BE ONE IN WHICH THE SLAB TAPERS TO A SHARP ANGLE WHEN THE LENGTH TO WIDTH RATIO EXCEEDS 3 TO 1 OR WHEN A SLAB IS NEITHER SQUARE NOR RECTANGULAR.*
   - *G. THE CONTRACTOR SHALL SUBMIT HIS DESIRED JOINT LAYOUT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK.*
45. *THE CONTRACTOR SHALL PROVIDE VERIFICATION OF COMPLETION AND COMPLIANCE OF ANY AND ALL REQUIRED TESTS TO THE TOWN OF ADDISON.*
46. *THE CONTRACTOR SHALL CALL (972) 450-2847 TO REQUEST A FINAL WALK-THROUGH INSPECTION OF THE PUBLIC INFRASTRUCTURE WORK.*

NO.	REVISION	BY	DATE
1	REMOVE TEMPORARY CUL-DE-SAC	ICE	6/10/11

NORTH

0 30 60 90 120
GRAPHIC SCALE IN FEET
SCALE: 1"=60'

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER

Addison!
TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

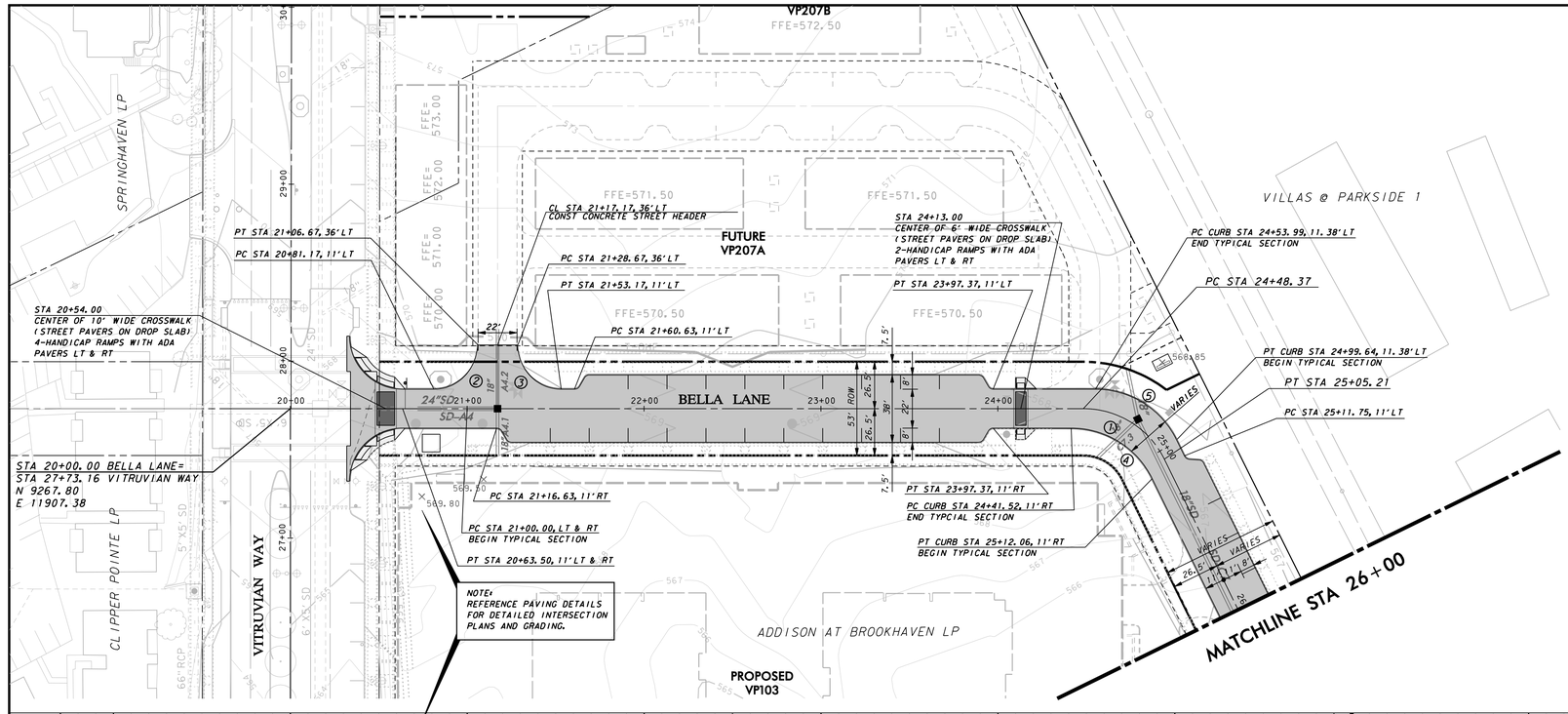
OVERALL PAVING PLAN & NOTES

icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
250 W. Southlake Blvd., Suite 117
Southlake, Tx 76092 (817) 552-6210

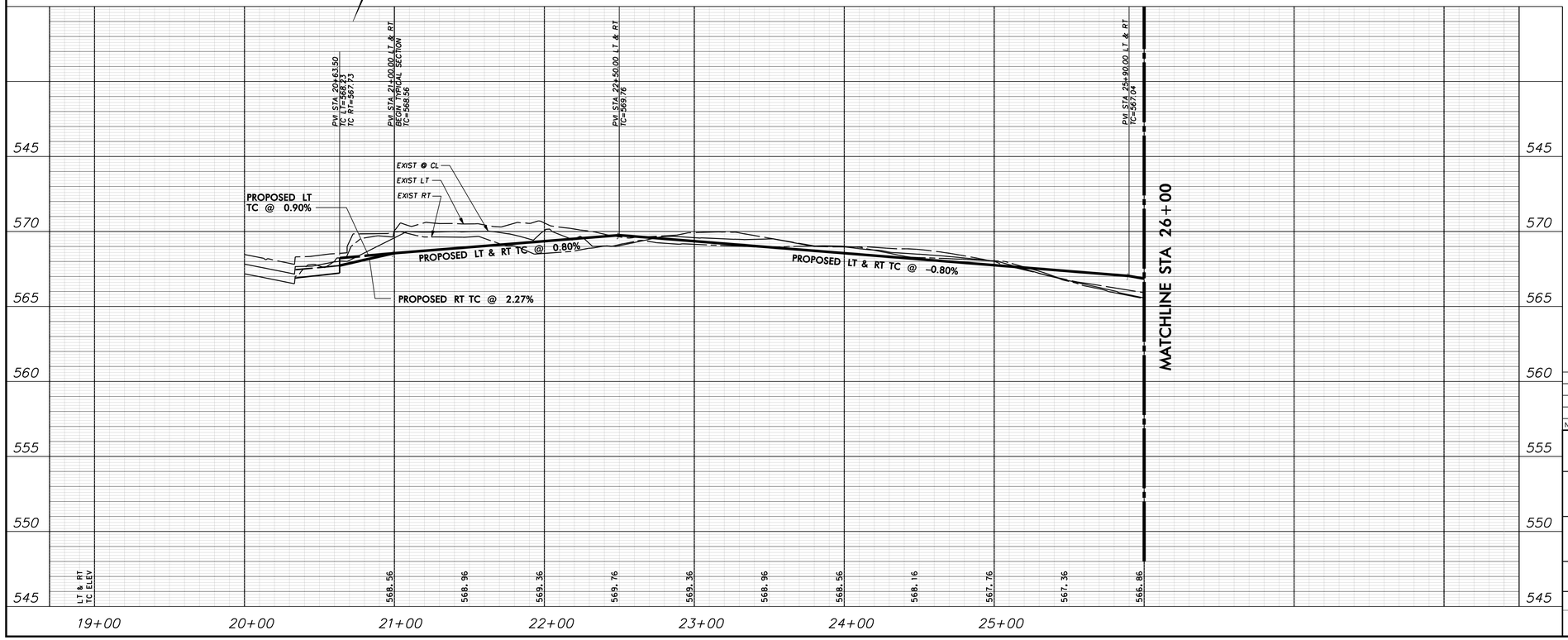
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW# 2010-08	5

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12



CURVE DATA			
NO	DELTA	RADIUS	LENGTH
1	63° 51' 37"	40.00'	56.84'
2	90° 00' 00"	20.00'	31.42'
3	90° 00' 00"	20.00'	31.42'
4	63° 51' 37"	51.00'	56.84'
5	63° 51' 37"	51.00'	56.84'



WARNING

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

BM #1 REF. ELEVATION = 559.47
SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN END NOSE, MARSH LANE 1127' NORTH OF VITRUVIAN WAY.

BM #2 REF. ELEVATION = 547.84
SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION OF VITRUVIAN WAY AND MARSH LANE.

PROFILE SCALE:
0 20 40 60 80
SCALE: 1"=40' HORIZ
0 2 4 6 8
SCALE: 1"=4' VERT

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE

Addison

TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

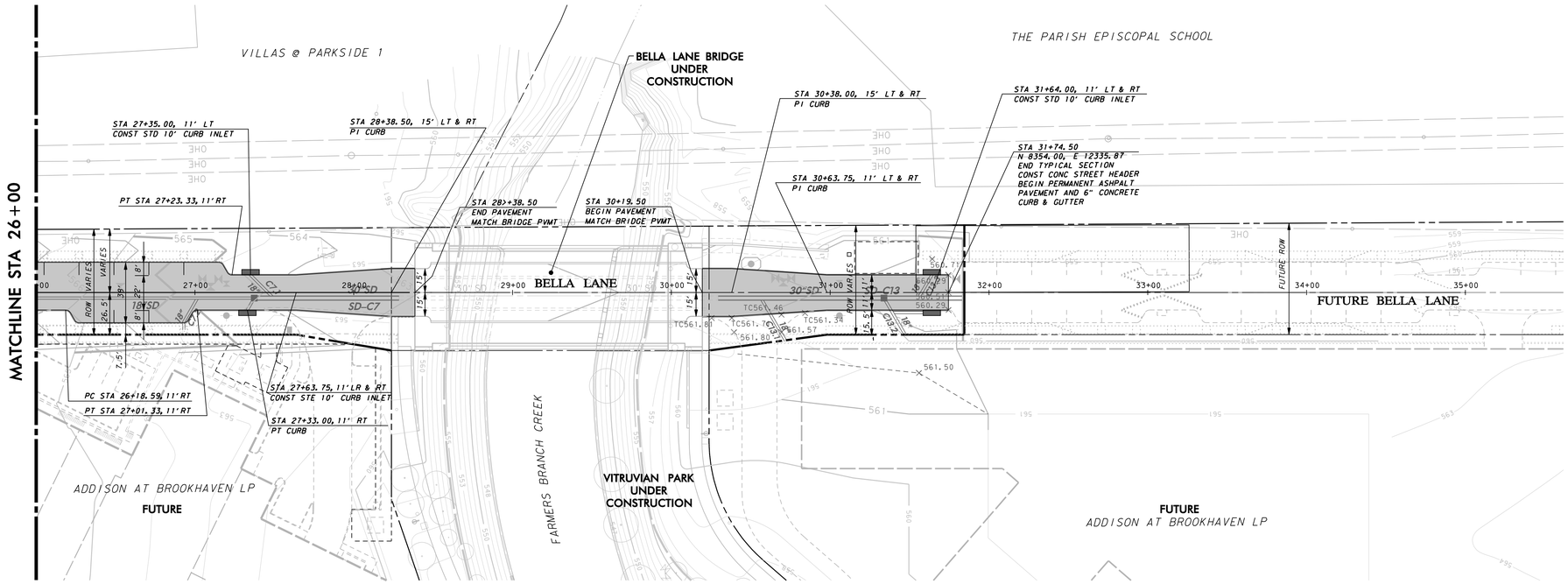
PAVING PLAN & PROFILE
STA. 20+63.50 TO 26+00.00

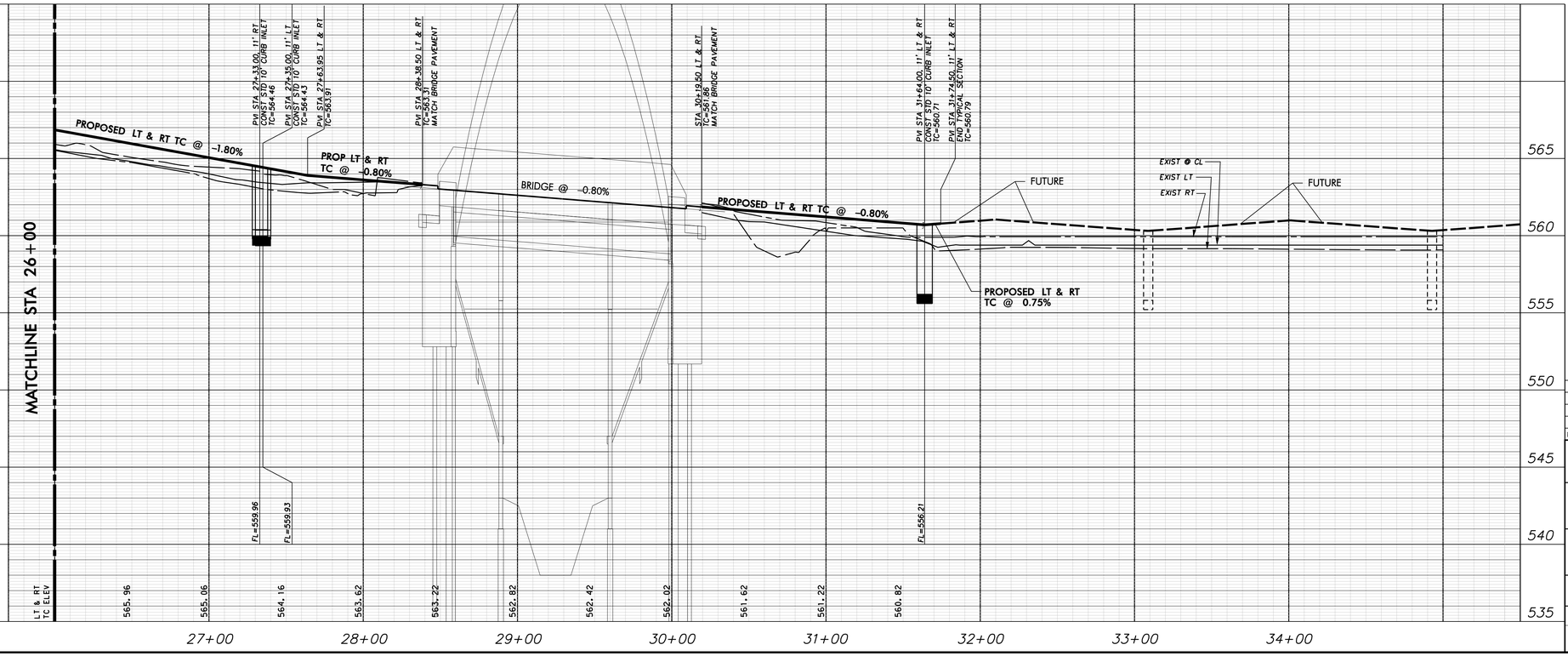
icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
250 W. Southlake Blvd., Suite 117
Southlake, Tx 76092 (817) 552-6210

PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW # 2010-08	6

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12





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PAVING PLAN & PROFILE
STA. 26+00 TO 32+61.77

icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
250 W. Southlake Blvd., Suite 117
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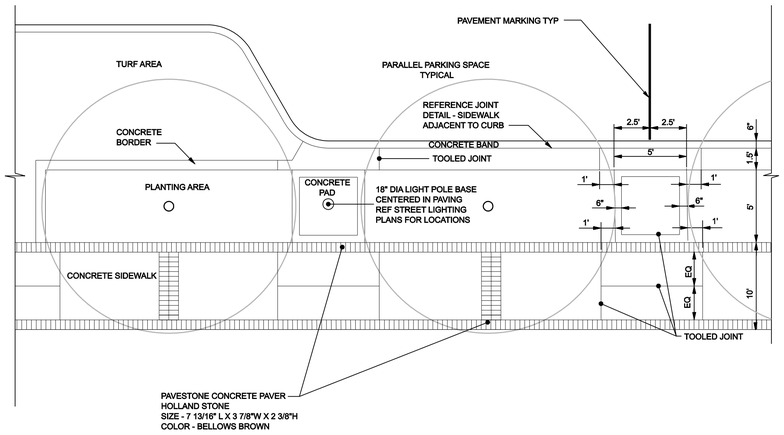
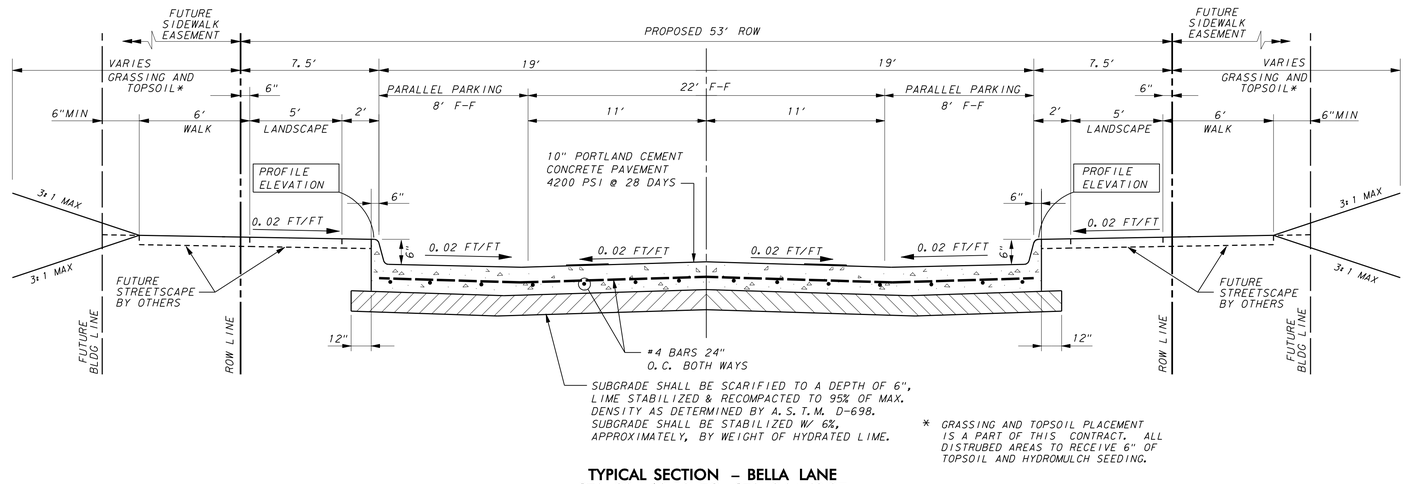
RECORD DRAWINGS 06/13/12

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE



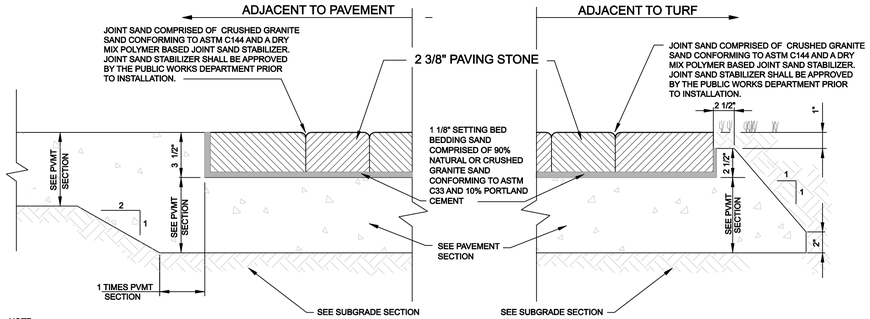
TYPICAL PLAN
SCALE: 1"-5'



SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 6", LIME STABILIZED & RECOMPACTED TO 95% OF MAX. DENSITY AS DETERMINED BY A.S.T.M. D-698. SUBGRADE SHALL BE STABILIZED W/ 6%, APPROXIMATELY, BY WEIGHT OF HYDRATED LIME.

* GRASSING AND TOPSOIL PLACEMENT IS A PART OF THIS CONTRACT. ALL DISTRUBED AREAS TO RECEIVE 6" OF TOPSOIL AND HYDROMULCH SEEDING.

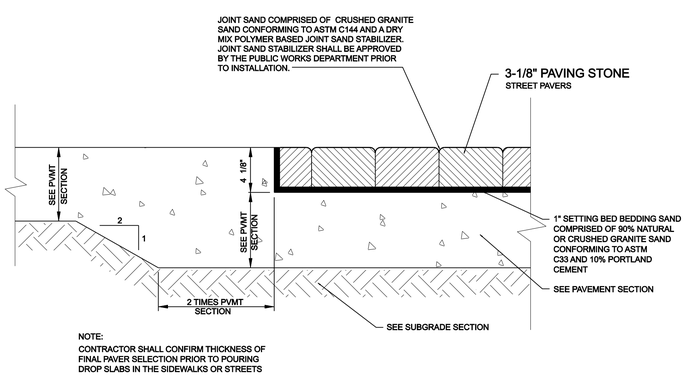
TYPICAL SECTION – BELLA LANE
STA 20+63.50 TO STA 24+48.37
NOT TO SCALE



NOTE:
CONTRACTOR SHALL CONFIRM THICKNESS OF FINAL PAVER SELECTION PRIOR TO POURING DROP SLABS IN THE SIDEWALKS

PAVERS ON CONCRETE
N.T.S.

FUTURE STREETSCAPE PAVEMENT
UNDER SEPARATE CONTRACT



NOTE:
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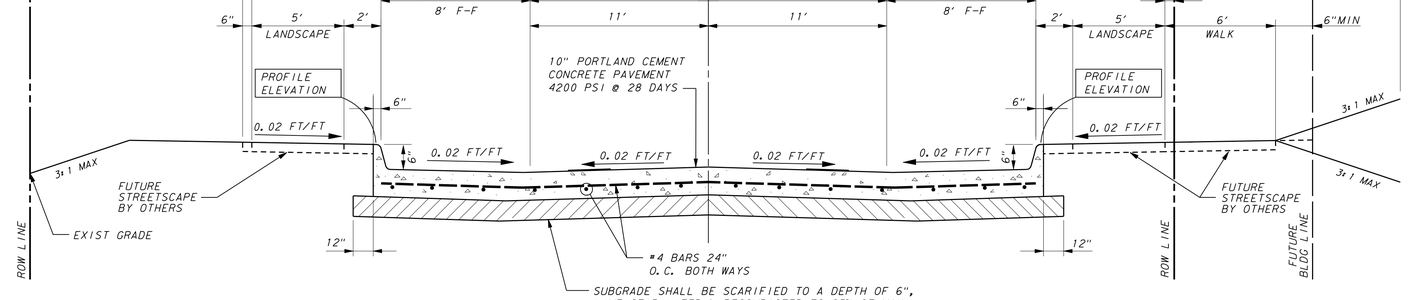
STREET PAVERS ON CONCRETE DROP SLAB
N.T.S.



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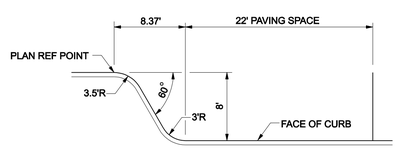
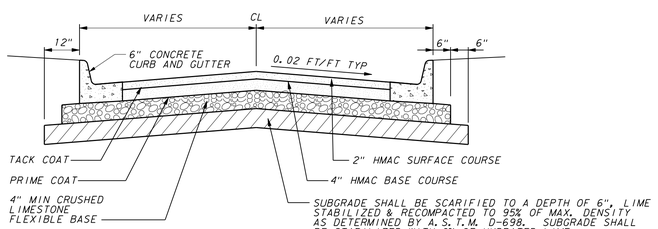
TYPICAL SECTION – BELLA LANE
STA 25+05.21 TO STA 27+63.75
NOT TO SCALE



TYPICAL PARALLEL PARKING TRANSITION
NOT TO SCALE



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TYPICAL SECTION FOR PERMANENT ASPHALT PAVEMENT
NOT TO SCALE

STATE OF TEXAS
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TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

PAVEMENT SECTIONS

icon Consulting Engineers, Inc.
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250 W. Southlake Blvd., Suite 117
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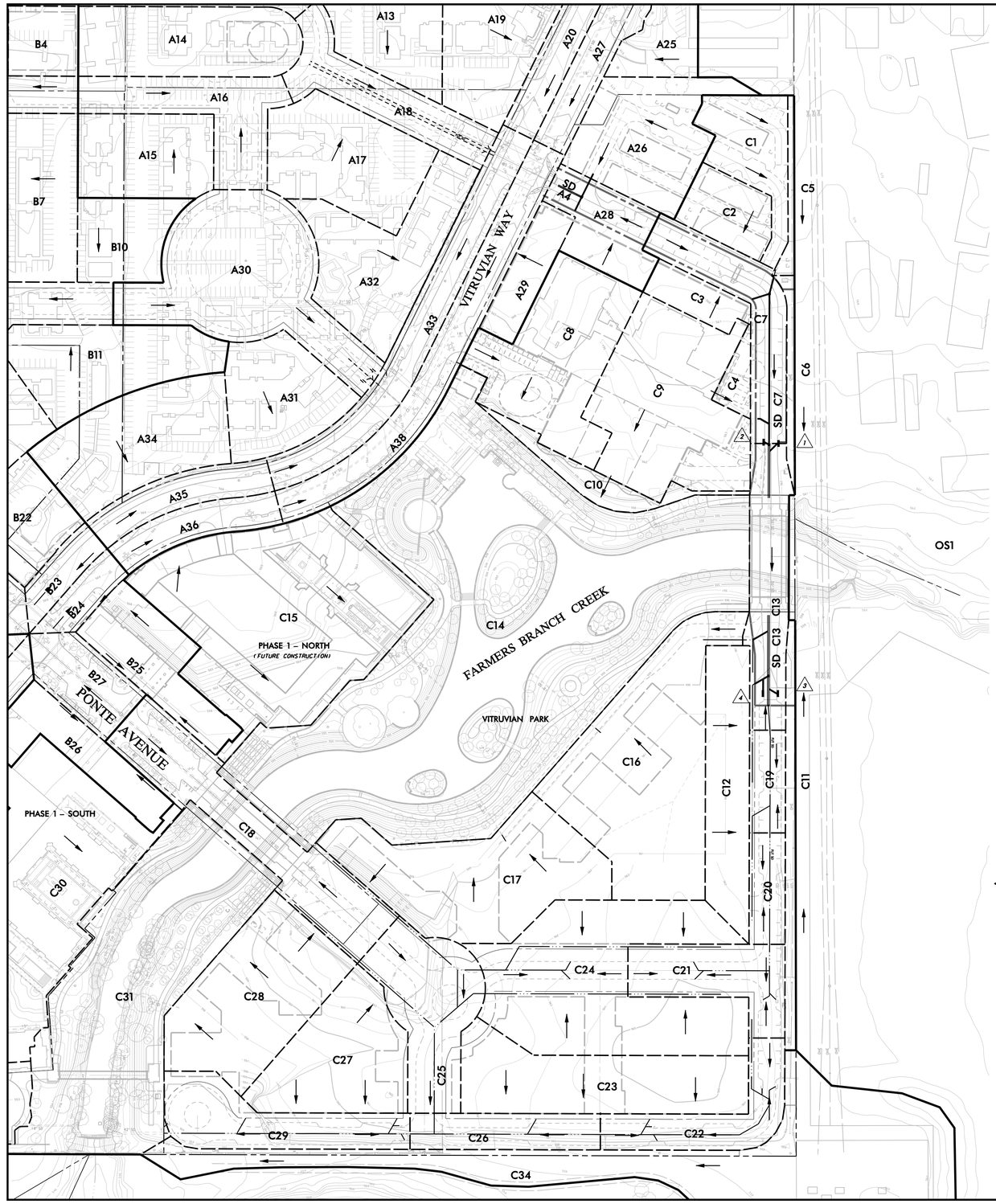
PAVING, DRAINAGE, & UTILITY IMPROVEMENTS – BELLA LANE

RECORD DRAWINGS 06/13/12



DRAINAGE AREA CALCULATIONS - PROPOSED

AREA NO.	AREA (acres)	RUNOFF COEFF.	CA	Tc (min)	I2 (in/hr)	Q2 (cfs)	I5 (in/hr)	Q5 (cfs)	I10 (in/hr)	Q10 (cfs)	I25 (in/hr)	Q25 (cfs)	I50 (in/hr)	Q50 (cfs)	I100 (in/hr)	Q100 (cfs)	COLLECTION POINT
A26	1.00	0.90	0.90	10.0	5.2	4.7	5.9	5.3	6.5	5.8	7.4	6.7	8.2	7.3	8.9	8.0	FUTURE STORM DRAIN
A28	0.50	0.90	0.45	10.0	5.2	2.4	5.9	2.6	6.5	2.9	7.4	3.3	8.2	3.7	8.9	4.0	FUTURE STORM DRAIN
	1.5					**7.1**		**7.9**		**8.8**		**10.0**		**11.0**		**12.0**	
C1	0.60	0.90	0.54	10.0	5.2	2.8	5.9	3.2	6.5	3.5	7.4	4.0	8.2	4.4	8.9	4.8	FUTURE STORM DRAIN
C2	0.40	0.90	0.36	10.0	5.2	1.9	5.9	2.1	6.5	2.3	7.4	2.7	8.2	2.9	8.9	3.2	FUTURE STORM DRAIN
C3	0.30	0.90	0.27	10.0	5.2	1.4	5.9	1.6	6.5	1.8	7.4	2.0	8.2	2.2	8.9	2.4	FUTURE STORM DRAIN
C4	0.10	0.90	0.09	10.0	5.2	0.5	5.9	0.5	6.5	0.6	7.4	0.7	8.2	0.7	8.9	0.8	FUTURE STORM DRAIN
C5	0.10	0.40	0.04	10.0	5.2	0.2	5.9	0.2	6.5	0.3	7.4	0.3	8.2	0.3	8.9	0.4	OVERLAND FLOW TO FBC
C6	0.10	0.40	0.04	10.0	5.2	0.2	5.9	0.2	6.5	0.3	7.4	0.3	8.2	0.3	8.9	0.4	OVERLAND FLOW TO FBC
C7	0.80	0.95	0.76	10.0	5.2	4.0	5.9	4.5	6.5	4.9	7.4	5.7	8.2	6.2	8.9	6.7	CURB INLETS
C11	0.30	0.40	0.12	10.0	5.2	0.6	5.9	0.7	6.5	0.8	7.4	0.9	8.2	1.0	8.9	1.1	OVERLAND FLOW TO FBC
C12	0.80	0.90	0.72	10.0	5.2	3.8	5.9	4.2	6.5	4.7	7.4	5.4	8.2	5.9	8.9	6.4	FUTURE STORM DRAIN
C13	0.70	0.95	0.67	10.0	5.2	3.5	5.9	3.9	6.5	4.3	7.4	4.9	8.2	5.4	8.9	5.9	CURB INLETS
C19	0.30	0.95	0.29	10.0	5.2	1.5	5.9	1.7	6.5	1.8	7.4	2.1	8.2	2.3	8.9	2.5	FUTURE STORM DRAIN
C20	0.30	0.95	0.29	10.0	5.2	1.5	5.9	1.7	6.5	1.8	7.4	2.1	8.2	2.3	8.9	2.5	FUTURE STORM DRAIN
C21	0.70	0.95	0.67	10.0	5.2	3.5	5.9	3.9	6.5	4.3	7.4	4.9	8.2	5.4	8.9	5.9	FUTURE STORM DRAIN
	0.0					**25.3**		**28.5**		**31.4**		**36.0**		**39.5**		**43.0**	

STORM DRAIN CALCULATIONS - 100 YR

MH or INLET DESIGN POINT UPSTRM STATION	MH or INLET DESIGN POINT DNSTRM STATION	DISTANCE Between Points (ft)	Peak Flow in Pipe "Q" (cfs)	PIPE SIZE (in)	FRICTIONAL SLOPE "Sf" (ft / ft)	HYDRAULIC GRADIENT ELEVATIONS UPSTRM (ft MSL)	HYDRAULIC GRADIENT ELEVATIONS DNSTRM (ft MSL)	HEAD LOSS AT CHANGE IN SECTION V1 Flow IN (fps)	V2 Flow OUT (fps)	V2(^2) 2g (ft)	V1(^2) 2g (ft)	Ki Coeff Of Loss (const)	Ki(V1(^2) 2g Head Loss (ft)	Hi Upstream (ft)	Elev of Hyd Grade (ft MSL)	Elev Difference TC/FG - HGL at Des Pt TC/FG (ft)	Elev Difference TC/FG - HGL at Des Pt HGL DIFF. (ft)	REMARKS
LINE A4																		
145.17	145.17	0.00	8.0	18	0.0061	561.99	561.99	---	4.53	0.32	---	0.00	---	0.00	561.99	569.20	7.21	
145.17	100.17	45.00	12.0	24	0.0028	561.86	561.73	4.53	3.82	0.23	0.32	0.00	0.23	0.00	561.86	569.20	7.34	END & PLUG
100.17	55.00	45.17	12.0	24	0.0028	560.77	560.64	3.82	3.82	0.23	0.23	0.50	0.11	0.11	560.88	568.40	7.52	MANHOLE W / 60° BRANCH
LINE C7																		
455.00	455.00	0.00	4.8	18	0.0061	565.37	565.37	---	2.72	0.11	---	0.00	---	0.00	565.37	568.50	3.13	
455.00	411.56	43.44	10.4	18	0.0098	565.23	564.80	2.72	5.89	0.54	0.11	1.25	0.39	0.14	565.37	568.50	3.13	CURB INLET
411.56	188.32	223.24	11.2	18	0.0114	560.90	558.36	5.89	6.34	0.62	0.54	0.25	0.49	0.13	561.03	567.84	6.81	MANHOLE W / 90° BEND
188.32	152.61	35.71	14.6	18	0.0193	556.88	556.19	6.34	8.26	1.06	0.62	0.75	0.59	0.47	557.35	565.39	8.04	60° WYE
152.61	140.44	12.17	17.9	30	0.0019	555.92	555.90	8.26	3.65	0.21	1.06	0.25	-0.06	0.26	556.19	564.75	8.56	MANHOLE W / 60° BRANCH
140.44	61.44	79.00	17.9	30	0.0019	555.42	555.27	3.65	3.65	0.21	0.21	0.75	0.05	0.15	555.58	564.64	9.06	45° WYE
LINE C13																		
226.22	226.22	0.00	14.1	30	0.0061	556.01	556.01	---	2.87	0.13	---	0.00	---	0.00	556.01	560.87	4.86	
226.22	197.27	28.95	14.1	30	0.0012	556.01	555.98	2.87	2.87	0.13	0.13	0.00	0.13	0.00	556.01	560.87	4.86	END & PLUG
197.27	175.59	21.68	17.1	30	0.0017	555.88	555.84	2.87	3.48	0.19	0.13	0.75	0.09	0.10	555.98	560.78	4.80	60° WYE
175.59	98.13	77.46	21.6	30	0.0028	555.80	555.58	3.48	4.40	0.30	0.19	0.25	0.25	0.05	555.84	560.94	5.10	MANHOLE W / 60° BRANCH
98.13	71.22	26.91	23.2	30	0.0032	555.36	555.27	4.40	4.73	0.35	0.30	0.75	0.12	0.23	555.58	561.58	6.00	60° WYE

INLET CALCULATIONS

INLET NO.	INLET STATION	INLET TYPE	DRAINAGE CALCS 100 YR AREA NO.	DRAINAGE CALCS 100 YR PEAK FLOW (CFS)	CARRY OVER (CFS)	TOTAL FLOW (CFS)	ROADWAY SECTION CROSS SLOPE (FT/FT)	ROADWAY SECTION LONG. SLOPE (FT/FT)	ROADWAY SECTION MAX DEPTH (FT)	ROADWAY SECTION SPREAD OF FLOW (FT)	INLET LENGTH PROV. (FT)	INLET INLET FLOW (CFS)	INLET CARRY OVER (CFS)	COMMENTS
1	27+45.00, 11' LT	CO-D	C7 / 2	3.35	0.00	3.35	0.0208	0.0124	0.20	9.8	10.0	2.92	0.43	
2	27+45.00, 11' RT	CO-D	C7 / 2	3.35	0.00	3.35	0.0208	0.0124	0.20	9.8	10.0	2.92	0.43	
3	31+64.00, 11' LT	CO-S	C13 / 2	2.95	0.43	3.38	0.0208	0.0080	0.23	10.9	10.0	3.38	0.00	
4	31+64.00, 11' RT	CO-S	C13 / 2	2.95	0.43	3.38	0.0208	0.0080	0.23	10.9	10.0	3.38	0.00	

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LEGEND

- A17 — DRAINAGE AREA DESIGNATION
- MAJOR DRAINAGE AREA DIVIDE
- MINOR DRAINAGE AREA DIVIDE
- DIRECTION OF FLOW
- 1 — INLET NUMBER

NORTH

0 50 100 150 200
GRAPHIC SCALE IN FEET
SCALE: 1"=100'

NO.	REVISION	BY	DATE

Addison

TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

DRAINAGE AREA MAP & CALCULATIONS

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PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
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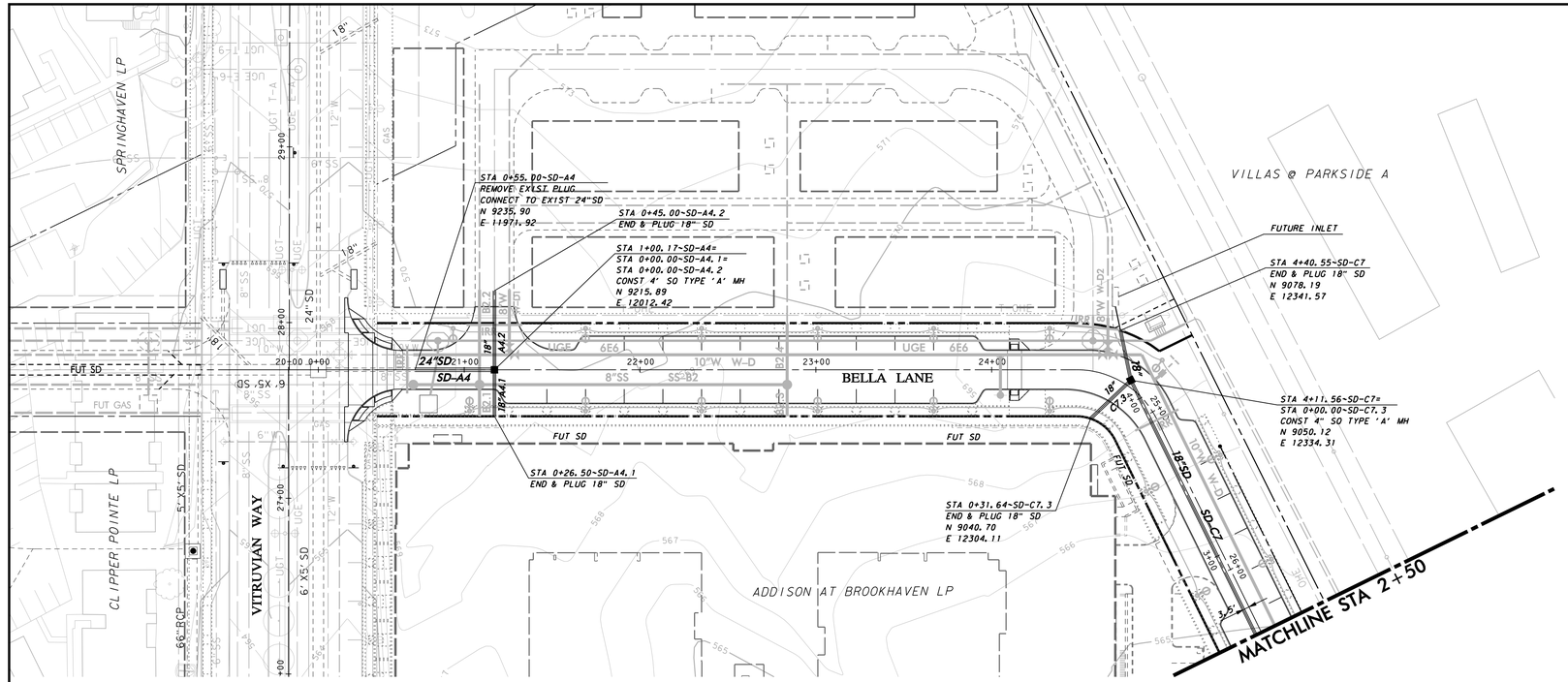

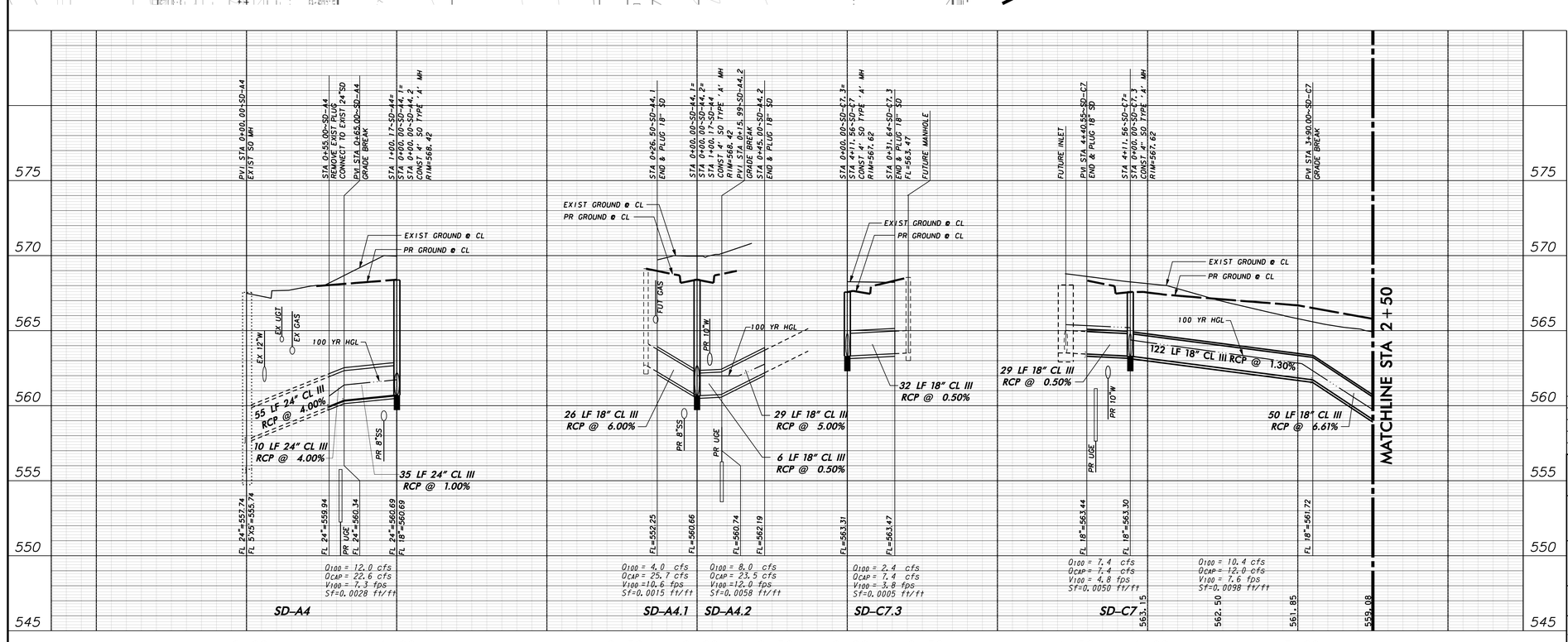

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BELLA LANE

STORM DRAIN PLAN & PROFILE
LINE A4 & C7

icon Consulting Engineers, Inc.
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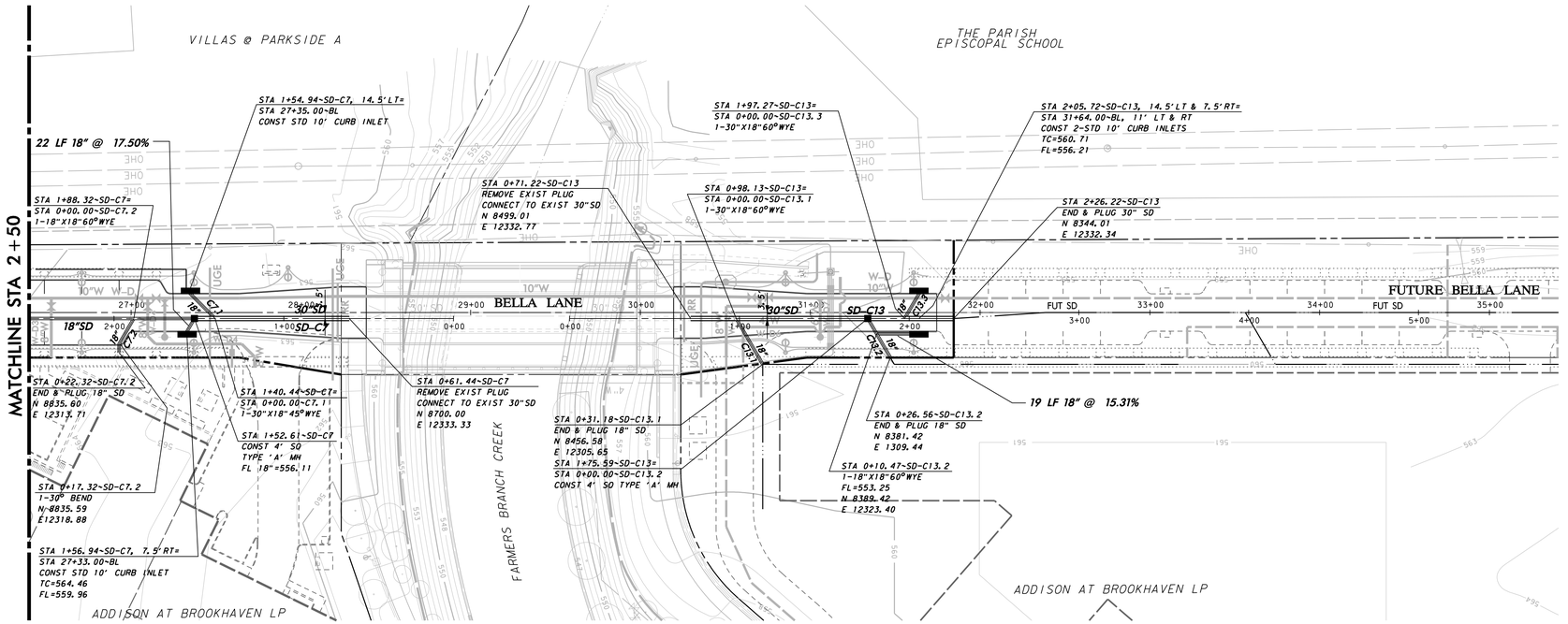

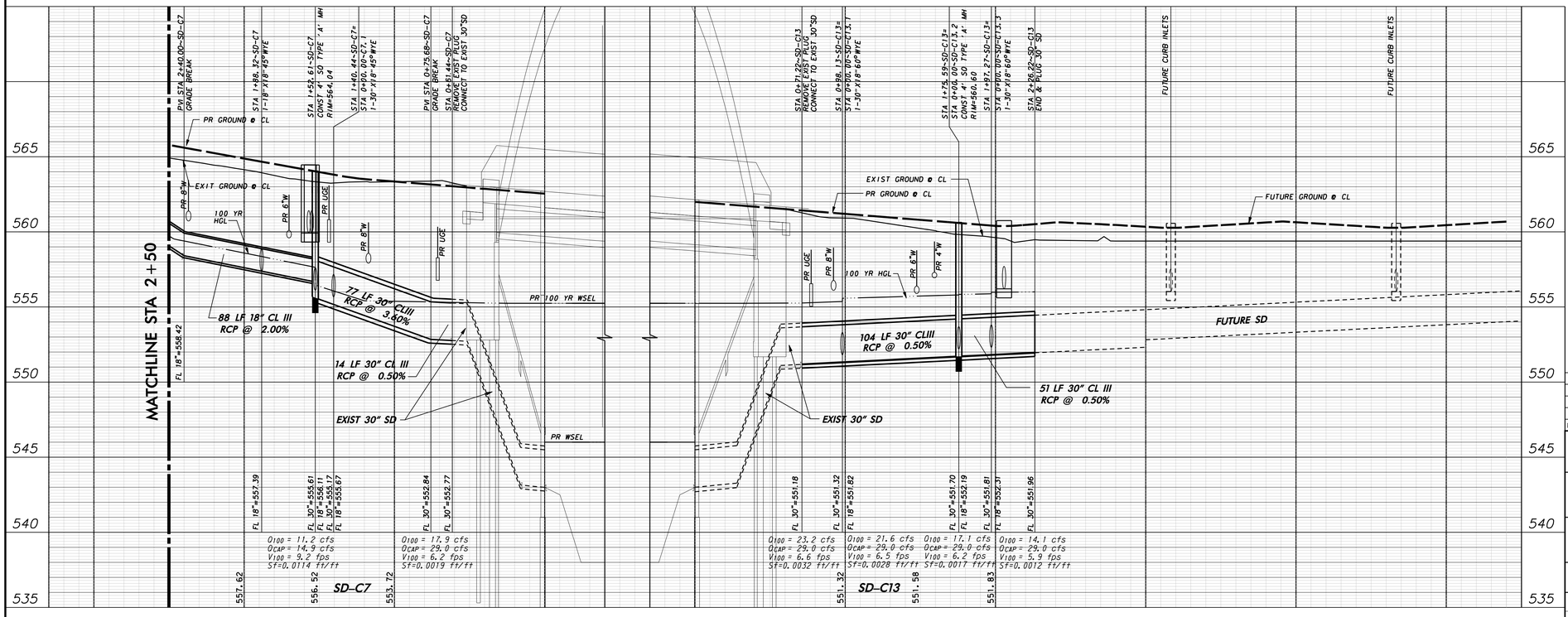

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LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE

TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

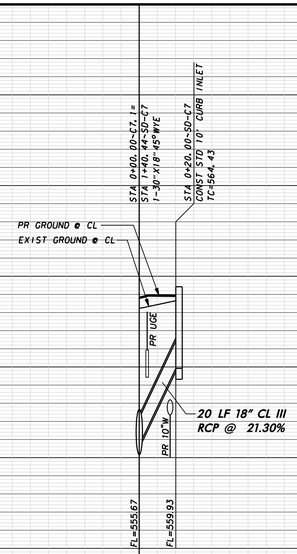
STORM DRAIN PLAN & PROFILE
LINE C7 & C13

icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
250 W. Southlake Blvd., Suite 117
Southlake, Tx 76092 (817) 552-6210

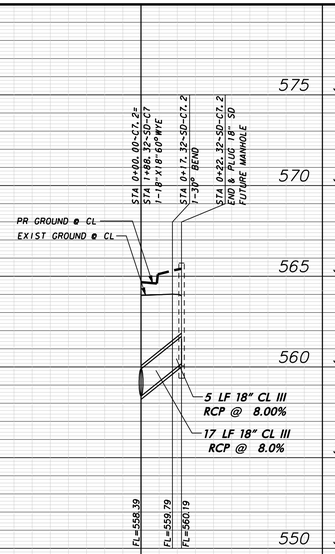
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW # 2010-08	15

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12



C7.1



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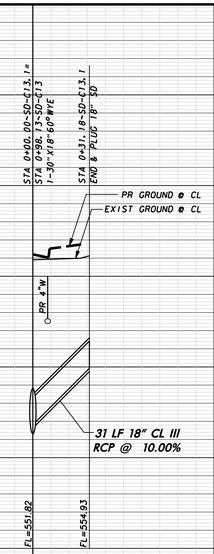

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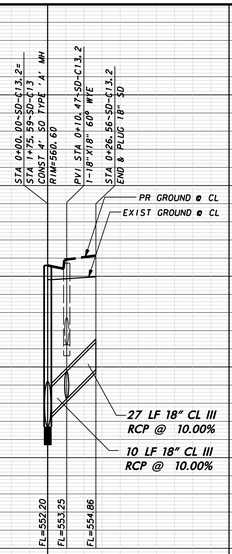

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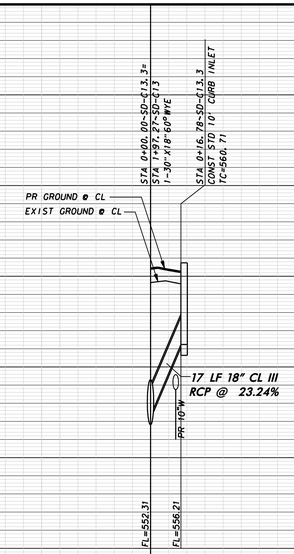

C13.3

WARNING

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

BM #1 REF. ELEVATION = 559.47
SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN END NOSE, MARSH LANE 112'± NORTH OF VITRUVIAN WAY.

BM #2 REF. ELEVATION = 547.84
SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION OF VITRUVIAN WAY AND MARSH LANE.

PROFILE SCALE:

0 20 40 60 80
SCALE: 1"=40' HORIZ

0 2 4 6 8
SCALE: 1"=4' VERT

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER
11/11/11

NO.	REVISION	BY	DATE

Addison! TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

STORM DRAIN LATERAL PROFILES

icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
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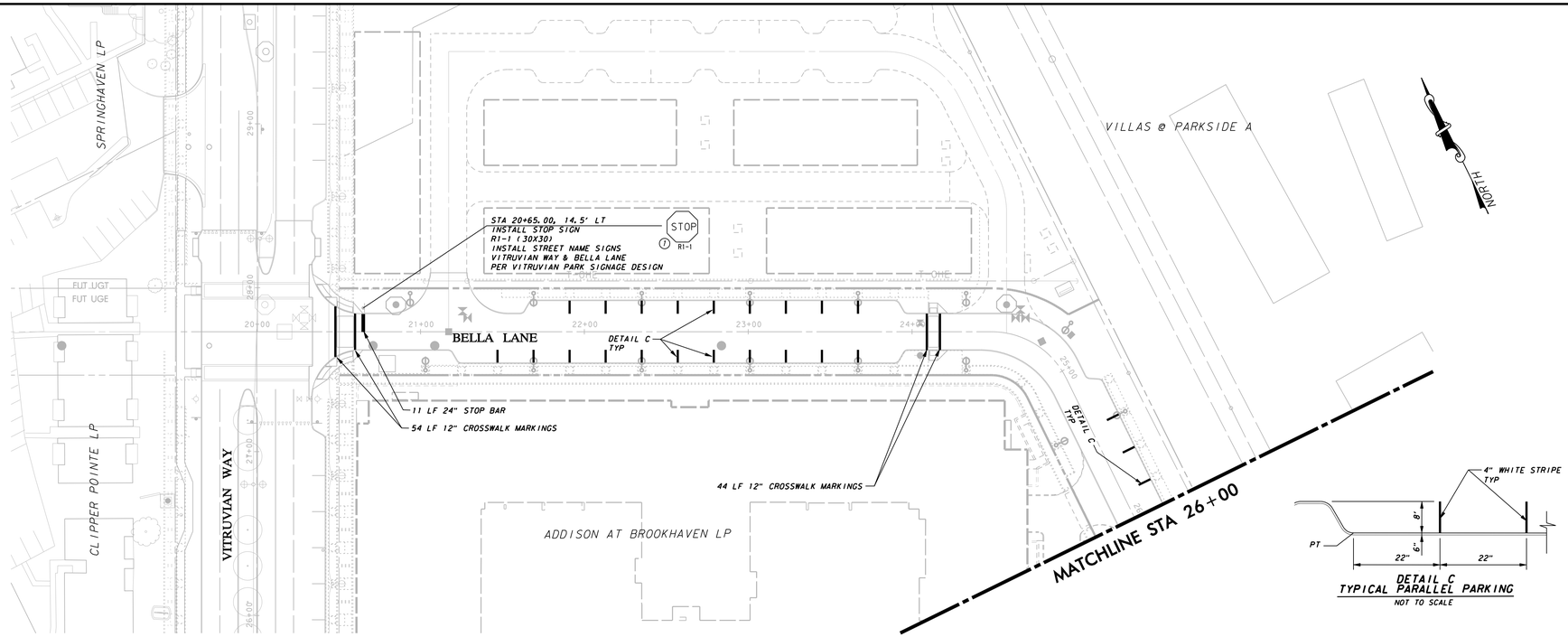
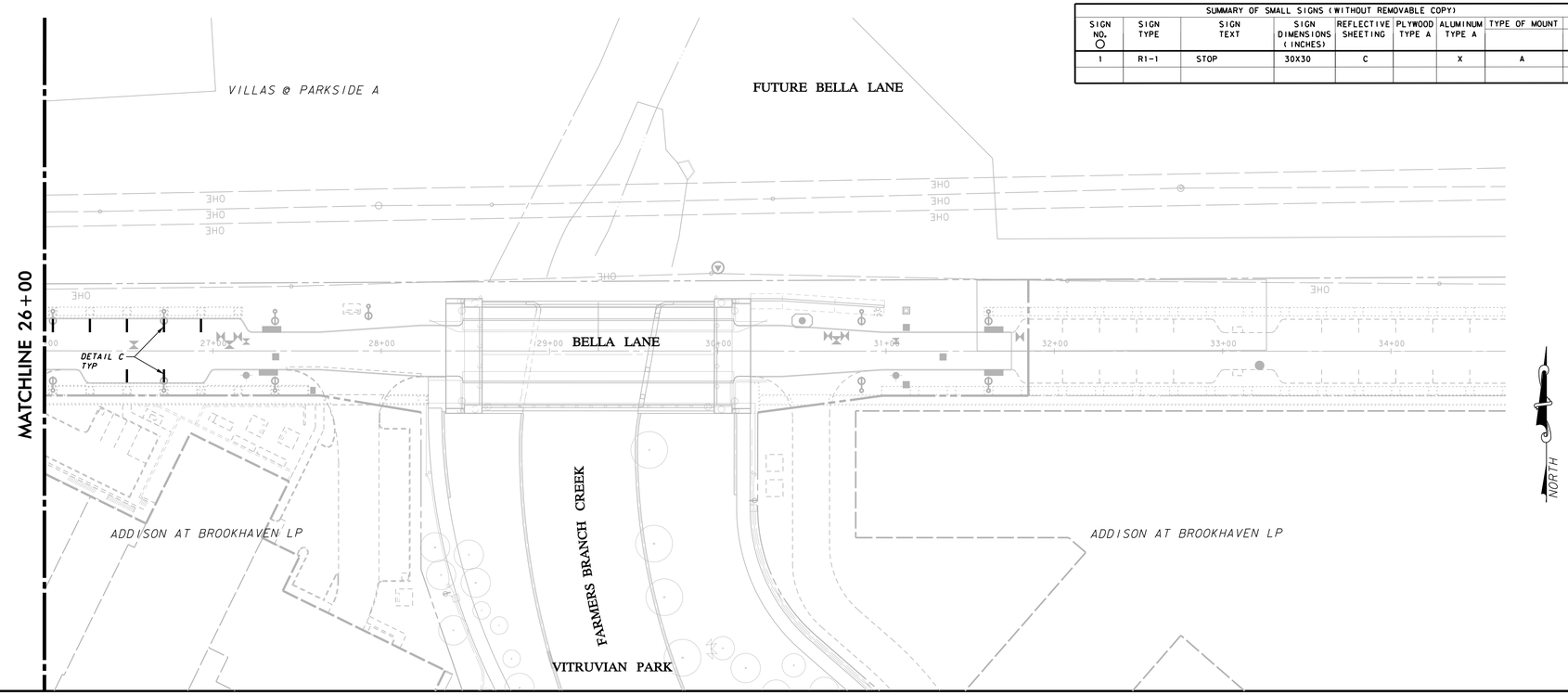
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW# 2010-08	16

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12



DETAIL C
TYPICAL PARALLEL PARKING
NOT TO SCALE



SUMMARY OF SMALL SIGNS (WITHOUT REMOVABLE COPY)								
SIGN NO. ○	SIGN TYPE	SIGN TEXT	SIGN DIMENSIONS (INCHES)	REFLECTIVE SHEETING	PLYWOOD TYPE A	ALUMINUM TYPE A	TYPE OF MOUNT	QUANTITY
1	R1-1	STOP	30X30	C		X	A	1

PAVEMENT MARKING & SIGNAGE NOTES:

1. SIGN LOCATIONS SHOWN ON PLANS ARE DIAGRAMMATIC. SIGNS WILL BE PLACED IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST ADDITION.
2. REFLECTIVE SHEETING WILL BE DESIGNATED AS:
   TYPE A=ENGINEER GRADE
   TYPE B=SUPER ENGINEER GRADE
   TYPE C=HIGH INTENSITY PRISMATIC
3. DO NOT REMOVE EXISTING PAVEMENT MARKINGS OR SIGNAGE PRIOR TO NEW ROADWAY OPENING TO TRAFFIC.
4. ALL PAVEMENT MARKINGS TO BE ALKYD THERMOPLASTIC WITH 0.090 INCHES THICKNESS.
5. SIGN POSTS AND MOUNTING PER TOWN OF ADDISON AND VITRUVIAN DEVELOPMENT REQUIREMENTS.

CURVE DATA			
NO.	RADIUS	DELTA	LENGTH

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0 20 40 60 80
GRAPHIC SCALE IN FEET
SCALE: 1"=40'

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER
7/11/11

NO.	REVISION	BY	DATE

TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

PAVEMENT MARKING AND SIGNAGE PLAN

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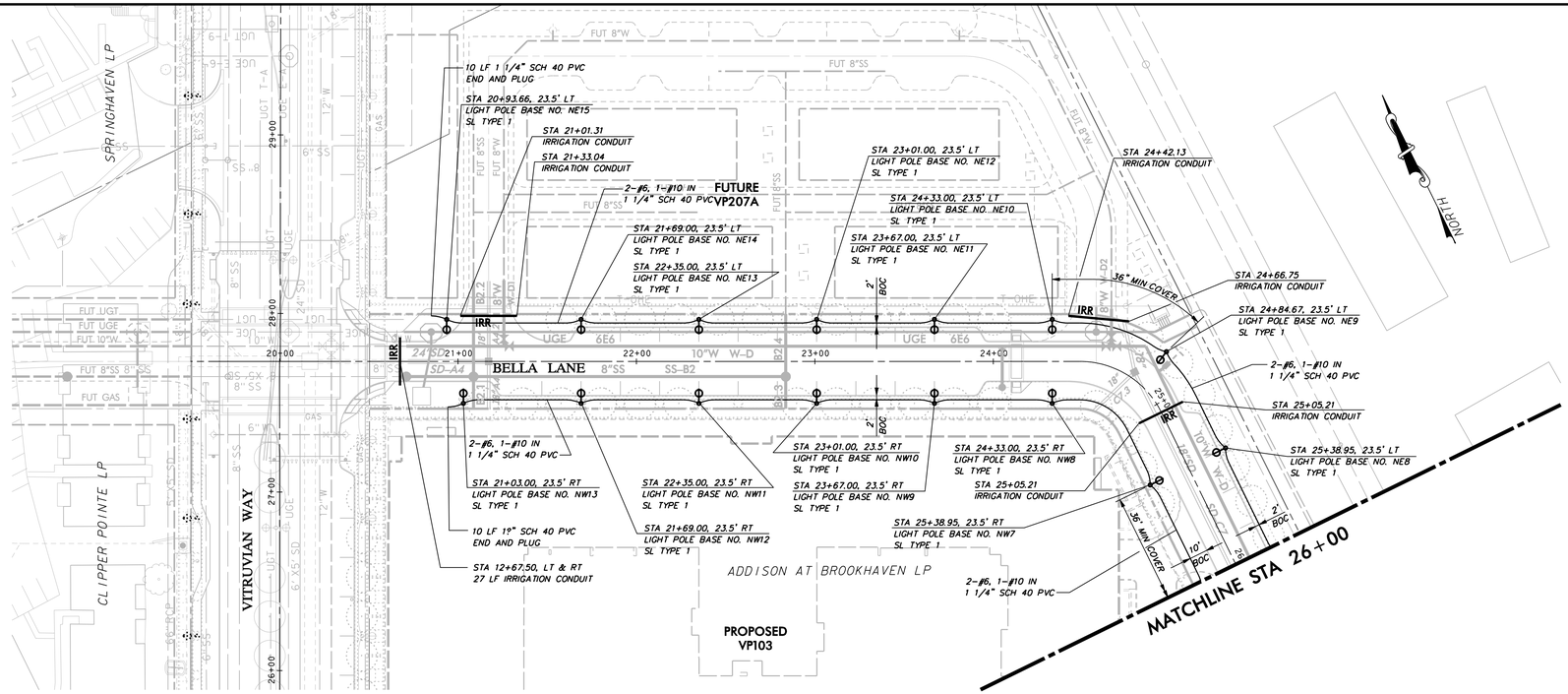
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW# 2010-08	19

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12

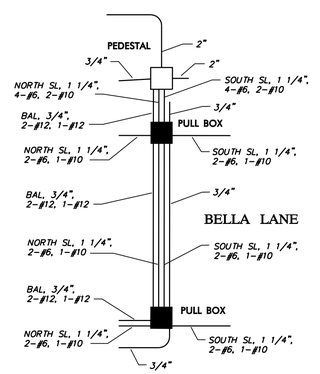


LEGEND

- PULL BOX (GROUND BOX) ■
- PVC CONDUIT (LIGHTING) ——
- TRANSFORMER ON POLE * ▲
- STREET LIGHT – 400W ⊕
- STREET LIGHT – FUTURE 400W ⊕
- STREET LIGHT – 100W ⊖
- STREET LIGHT – FUTURE 100W ⊖
- * PROVIDED BY POWER COMPANY

STREET LIGHTING & CONDUIT NOTES

1. REFER TO SHEET 3 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THE PROJECT.
2. REFER TO SHEET ED(1)-03 FOR ELECTRIC DETAILS – CONDUIT. RIGID METAL CONDUIT ELBOWS ARE NOT REQUIRED.
3. REFER TO SHEET ED(2)-03 FOR ELECTRIC DETAILS – CONDUCTORS.
4. REFER TO SHEET ED(3)-03 FOR ELECTRIC DETAILS – GROUND BOXES. RIGID METAL CONDUIT ELBOWS ARE NOT REQUIRED. CONCRETE APRON IS NOT REQUIRED.
5. REFER TO SHEET ED(8)-03 FOR ELECTRIC DETAILS – ELECTRICAL SERVICE SUPPORT PEDESTAL SERVICE TYPE PS. PEDESTAL SERVICE SHALL BE ALUMINUM, COLOR LIGHT GRAY. RIGID METAL ELBOWS ARE NOT REQUIRED.
6. WATER, SANITARY SEWER, AND STORM DRAIN LINES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL LOCATE ALL UTILITY LINES IN THE AREA PRIOR TO DIGGING.
7. INSTALL SCHEDULE 40 PVC UNDERGROUND (24" MIN COVER) . ALL STREET AND DRIVEWAY CROSSINGS (36" MIN COVER). ALL BENDS TO BE LONG RADIUS.
8. ALL CONDUIT AT POLE BASES TO BE WITHIN THE DRILLED SHAFT FOUNDATION. NO EXPOSED CONDUIT AT POLE BASES WILL BE ALLOWED
9. SL TYPE 1 – SINGLE 100W 240V MH LUMINARE ON 11'-8" POLE, COLOR SILVER– REFERENCE SPECIAL PROVISIONS
10. CONNECTION TO POWER COMPANY CIRCUITS TO BE MADE ONLY BY POWER COMPANY.
11. UNLESS OTHERWISE INDICATED ALL WORK SHALL CONFORM TO THE 2008 NATIONAL ELECTRICAL CODE (NFPA 70) AND THE 2007 NATIONAL ELECTRICAL SAFETY CODE (ANSI C2).
12. ALL EMPTY CONDUIT INSTALLED FOR FUTURE EXTENSION SHALL BE TURNED UP AND EXTENDED UP TO FINISHED GRADE. CAP ENDS OF ALL CONDUITS. ALL EMPTY CONDUIT SHALL CONTAIN A PULL LINE – 200 LB TEST NYLON.
13. REFER TO REFERENCED SHEETS FOR STREET LIGHTING DETAILS.
14. IRRIGATION SLEEVES "IRR" SHALL CONSIST OF 1-6" SCH 40 PVC AND 1-2" SCH 40 PVC INSTALLED WITH MINIMUM 24" COVER AND EXTENDING 2' BEYOND THE BACKS OF CURB OR EDGE OF PAVEMENT AND UP TO FINISHED GRADE. CAP ENDS OF ALL CONDUITS.
15. STREET LIGHTING BASE AND CONDUIT LOCATIONS ARE CRITICAL FOR COORDINATION WITH FUTURE STREETSCAPE AND ADJACENT PRIVATE IMPROVEMENTS. INSTALL ONLY AT SPECIFIC LOCATIONS PROVIDED.



BELLA LANE LIGHTING & POWER ONE LINE DIAGRAM

NOT TO SCALE

WARNING

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0 20 40 60 80
GRAPHIC SCALE IN FEET
SCALE: 1"=40'

BRUCE F. DUNNE 62654 LICENSED PROFESSIONAL ENGINEER 7/11/11

NO.	REVISION	BY	DATE

TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

STREET LIGHT & CONDUIT PLAN

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Civil Engineers - Designers - Planners
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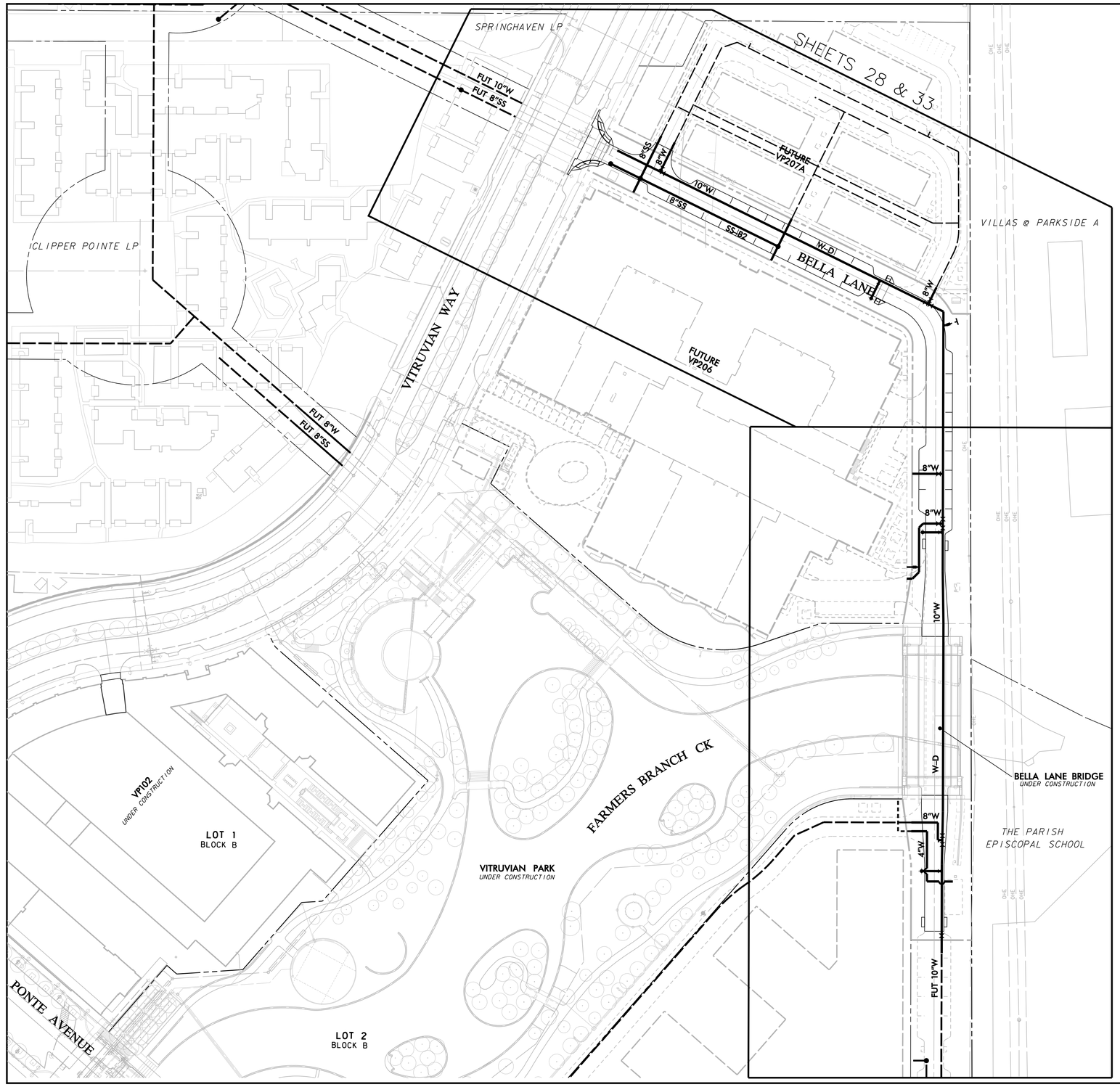
Southlake, Tx 76092 (817) 552-6210

PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW # 2010-08	21

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS – BELLA LANE

RECORD DRAWINGS 06/13/12



SHEET 2

NORTH

0 30 60 90 120
GRAPHIC SCALE IN FEET
SCALE: 1"=60'

GENERAL WATER & SEWER NOTES:

1. REFER TO SHEET 3 'GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS' FOR THE GENERAL CONSTRUCTION NOTES FOR THIS PROJECT.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION AS PUBLISHED BY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, AND ANY AND ALL AMENDMENTS BY THE TOWN OF ADDISON, AS WELL AS STANDARD CONSTRUCTION DETAILS OF THE TOWN OF ADDISON.
3. PRIOR TO COMMENCING CONSTRUCTION, THE TOWN OF ADDISON, THE CONSULTING ENGINEERS, THE SUCCESSFUL CONTRACTOR, UTILITY COMPANIES, AND ANY OTHER AFFECTED PARTIES, SHALL CONVENE FOR A PRE-CONSTRUCTION CONFERENCE AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
4. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM THE TOWN OF ADDISON PRIOR TO WORKING WITH THE PUBLIC RIGHT-OF-WAY.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ANY PUBLIC UTILITY COMPANIES FOR LOCATION OF EXISTING FACILITIES IN OR NEAR THE WORK AREAS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

   TOWN OF ADDISON (WATER, SEWER, SIGNALS) — ATMOS ENERGY (GAS)
   ONCOR ELECTRIC DELIVERY — VERIZON / MCI
   AT&T (SOUTHWESTERN BELL) — TIME-WARNER CABLE
6. THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER (SIX SETS EACH), FOR APPROVAL OF ALL MATERIALS TO BE ADDED TO THE PUBLIC INFRASTRUCTURE, PRIOR TO INCORPORATING MATERIALS INTO THE JOB.
7. THE CONTRACTOR SHALL PROVIDE AND SUBMIT TO THE TOWN OF ADDISON (SIX SETS EACH), AN APPROVED TRENCH SAFETY PLAN, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS, FOR THE INSTALLATION OF UTILITIES GREATER THAN FIVE (5) FEET IN DEPTH.
8. THE CONTRACTOR SHALL PROVIDE A MAINTENANCE BOND FOR PUBLIC INFRASTRUCTURE WORK IN THE FOLLOWING AMOUNTS:
   - 100% FOR VALUATIONS LESS THAN OR EQUAL TO $5,000.
   - $5,000 FOR VALUATION GREATER THAN $5,000. AND LESS THAN $50,000.
   - 10% FOR VALUATIONS GREATER THAN $50,000.

   BONDS SHALL BE FOR A PERIOD OF TWO YEARS BEGINNING WITH THE DATE OF FINAL ACCEPTANCE BY THE TOWN.
9. THE CONTRACTOR SHALL FULLY COMPLY WITH, AND SUPPLEMENT AS NECESSARY, THE CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN WHILE CONDUCTING HIS ACTIVITIES ON THIS PROJECT.
10. THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT WILL APPROVE AND/OR DETERMINE THE TRAFFIC CONTROL PLAN AND WORKING HOURS. CONTACT THE ASSISTANT CITY ENGINEER OR THE PUBLIC WORKS INSPECTOR AT (972) 450-2871.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, AND SUPPLEMENT AS NECESSARY, THE TRAFFIC CONTROL MEASURES ON THIS PROJECT, INCLUDING PROVIDING ADEQUATE FLAGMEN, SIGNAGE, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION IN ACCORDANCE WITH THE "TEXAS MANUAL OF UNIFORM CONTROL DEVICES". THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS OR PROVIDE AN ALL-WEATHER DETOUR AROUND THE CONSTRUCTION SITE, INCLUDING PUBLIC NOTIFICATION AND SIGNING.
12. TEMPORARY OR PERMANENT BARRICADES SHALL REMAIN AT ALL POINTS OF INGRESS OR EGRESS TO PREVENT PUBLIC USE UNTIL THE WORK RECEIVES FINAL ACCEPTANCE.
13. THE CONTRACTOR SHALL COVER ALL OPEN EXCAVATIONS WITH ANCHORED STEEL PLATING, DURING NON-WORKING HOURS, ALONG EXISTING ROADWAYS AND TRAFFIC AREAS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION, INCLUDING PROVIDING ALL TEMPORARY STRUCTURES OR IMPROVEMENTS AS NECESSARY FOR THE SAFETY OF THE PUBLIC.
15. THE TOWN OF ADDISON WILL PROVIDE A GEOTECHNICAL LABORATORY TO PERFORM APPROPRIATE TESTING DURING CONSTRUCTION ACTIVITIES. ANY TEST THAT FAILS TO MEET CITY REQUIREMENTS SHALL BE RETESTED AT THE CONTRACTORS EXPENSE.
16. ROUGH GRADING SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF WATER AND SANITARY SEWER FACILITIES.
17. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, FENCES, TREES, SHRUBS, GAS MAINS, TELEPHONE CABLES, ELECTRIC CABLES, DRAINAGE PIPES, UTILITY SERVICES, AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW THE GROUND, THE COST OF WHICH SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
18. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS ARE ACHIEVED. IN THE EVENT OF A CONFLICT BETWEEN WATER LINES AND STORM DRAIN OR SANITARY SEWER PIPING, THE CONTRACTOR SHALL ADJUST THE WATER LINE DOWNWARDS IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON THE PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED.
19. THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, ELEVATION, CONFIGURATION, AND ANGULATION OF EXISTING WATER, SANITARY SEWER AND UTILITY LINES PRIOR TO CONSTRUCTION OF TIE-IN MATERIALS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.
20. ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON'S WATER SYSTEM REQUIREMENTS.
21. ALL WATER MAINS TWELVE-INCH (12") DIAMETER AND SMALLER SHALL BE ANSI/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 150-PSI FOR DOMESTIC USE AND A MINIMUM CLASS RATING OF 200-PSI FOR FIRE LINE APPLICATIONS. JOINT MATERIAL FOR PVC SHALL CONFORM TO ASTM F471.
22. EMBEDMENT FOR WATER AND SEWER MAINS SHALL COMPLY WITH NCTCOG CLASS "B+" EMBEDMENT OF CRUSHED STONE TO THE SPRING LINE OF THE PIPE, WITH SAND (12" MIN.) OVER THE PIPE. A LAYER OF GEO-TEXTILE FABRIC SHALL BE PLACED ON TOP OF THE STONE PRIOR TO THE PLACEMENT OF THE SAND.
23. THE MINIMUM COVER TO THE TOP OF THE PIPE MUST VARY WITH THE VALVE STEM. IN GENERAL, THE MINIMUM COVER BELOW THE TOP OF CURB AT STREET TO TOP OF THE PIPE SHOULD BE AS FOLLOWS:
   A. LINES LARGER THAN SIXTEEN-INCH (16") SHALL HAVE A MINIMUM OF SIX FEET (6') OF COVER WHICH IS SUFFICIENT TO ALLOW WATER AND SEWER AND OTHER UTILITIES TO GO OVER THE LARGE MAIN.
   B. SIXTEEN-INCH (16") MAINS SHALL HAVE A MINIMUM COVER OF FIVE FEET (5').
   C. TWELVE-INCH (12") AND SMALLER MAINS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4').
24. THE CONTRACTOR SHALL SUPPLY AND INSTALL ANY ADDITIONAL BENDS WITH THRUST BLOCKING AND OTHER APPURTENANCES REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS. THE CONTRACTOR MAY PULL PIPE AS NEEDED AT THE BENDS WHERE THE DEFLECTION ANGLE OF THE PIPE DOES NOT MATCH THE ANGLE OF THE BEND PROVIDED THE PIPE DEFLECTION IS WITHIN TOLERABLE MANUFACTURERS LIMITS. THE COST FOR ADDITIONAL BENDS AND BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
25. ALL VALVES, DUCTILE IRON AND CAST IRON PIPE, FITTINGS AND SPECIALS SHALL BE POLYETHYLENE WRAPPED.
26. HORIZONTAL BLOCKING FOR WATER LINES HAS BEEN OMITTED FOR CLARITY, HOWEVER, BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS.
27. ALL FITTINGS SHALL BE DUCTILE IRON, FULL BODIED, MECHANICAL JOINT TYPE WITH RESTRAINING GLANDS, AND HAVE A MINIMUM RATED WORKING PRESSURE OF 250 PSI. FITTINGS SHALL BE WRAPPED WITH 8-MIL POLY PRIOR TO BACKFILL.
28. 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.
29. THRUST BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS. DO NOT COVER BELLS OR FLANGES WITH CONCRETE. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKING OR RESTRAINTS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCKS WHERE REQUIRED. THE COST TO REMOVE, REPLACE OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
30. TRACER WIRE SHALL BE PLACED ON PIPE PRIOR TO EMBEDMENT. WIRE SHALL BE #12 PLASTIC COATED COPPER WIRE, TIED TO ALL VALVES AND FIRE HYDRANTS, AND EXTENDING TO SIX (6) INCHES ABOVE FINISHED GRADE ALONG THE OUTSIDE OF ALL VALVE STACKS AND HYDRANTS.
31. FINISH BACKFILL SHALL BE NATIVE SOIL FREE OF ALL ROCKS AND CLODS GREATER THAN THREE INCHES IN DIAMETER, COMPACTED TO 95% STANDARD PROCTOR DENSITY, IN SIX (6) INCH MAXIMUM LOOSE LIFTS, WITH ZERO TO PLUS THREE, OPTIMUM MOISTURE.
32. NO PERSON SHALL OPEN, TURN OFF, INTERFERE WITH, ATTACH ANY HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE TOWN OF ADDISON UNLESS DULY AUTHORIZED TO DO SO BY THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT (972-450-2871).
33. THE CONTRACTOR WILL REMOVE EXISTING WATER METERS NOT USED FOR PROPOSED DEVELOPMENT. REMOVE METERS AND METER LIDS IN A WAY AS TO NOT DAMAGE THE METER OR LID AND DELIVER SALVAGED METERS TO THE TOWN OF ADDISON. CONTRACTOR SHALL KILL EXISTING DEADHEAD SERVICE FOR REMOVED METERS AT THE MAIN LINE.
34. THE CONTRACTOR SHALL COMPLETELY REMOVE AND DISPOSE OF EXISTING 8" WATER MAIN AFTER FINAL COMPLETION AND ACCEPTANCE OF NEW 12" WATER MAIN.
35. THE CONTRACTOR SHALL REPLACE EXISTING SERVICE LINES, DESIGNATED TO REMAIN, FROM EXISTING METERS TO NEW WATER MAIN WITH NEW COPPER (TYPE K ONLY) LINES. NEW SIZES TO BE THE SAME AS EXISTING, WITH A MINIMUM OF 3/4" DIAMETER.
36. ALL WASTEWATER MAIN PIPING SHALL MEET THE EXTRA STRENGTH REQUIREMENTS OF ASTM SPECIFICATION D3034 (SDR-35). PIPE SHALL HAVE THE BELL AND SPIGOT TYPE JOINTS, CONSISTING OF INTEGRAL WALL SECTION WITH FACTORY INSTALLED COMPRESSION RUBBER RING GASKET, SECURELY LOCKED IN BELL GROOVE TO PROVIDE POSITIVE SEAL UNDER ALL INSTALLATION CONDITIONS. PIPE SHALL BE LAID WITH THE BELL END ON THE UPSTREAM SIDE.
37. ALL SEWER MANHOLES WITH PRESSURE TYPE FRAME AND COVERS SHALL HAVE THE INTERIOR SURFACE COATED WITH AN EPOXY COATING (RAVEN 405 OR APPROVED EQUAL), MINIMUM 40 MILS THICKNESS, INSTALLED PER MANUFACTURE'S SPECIFICATIONS.
38. ALL EXISTING AND PROPOSED IMPROVEMENTS (VALVES, MANHOLES, FIRE HYDRANTS, WATER METERS, ETC.) SHALL BE ADJUSTED TO FINAL FINISHED GRADE BY THE CONTRACTOR.
39. THE CONTRACTOR SHALL STAMP A 2-INCH "W" AND A 2-INCH "S" IN THE CURB AT THE LOCATION OF THE WATER AND SEWER SERVICE LINES RESPECTIVELY. A 2-INCH "C" SHALL MARK CONDUITS CROSSING PAVEMENT, AND A 2-INCH "V" SHALL MARK WATER VALVES, WITH THE "POINT" OF THE "V" TOWARD THE VALVE.
40. WATERLINES SHALL BE TESTED BOTH BACTERIOLOGICALLY AND HYDROSTATICALLY. WATER MAINS SHALL BE HYROSTATICALLY TESTED AT 150 PSI FOR FOUR (4) HOURS. FIRE LINES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR (2) HOURS. ALL BLEEDER LINES SHALL BE REMOVED UPON COMPLETION OF TESTING BY REMOVING THE CORPORATION STOP AND INSTALLING A BRASS PLUG. HEAVILY CHLORINATED WATER (3.5 MG/L OR GREATER FREE CHLORINE) RESULTING FROM WATER LINE STERILIZATION SHALL BE DIRECTED TO THE SANITARY SEWER AFTER THE MANDATORY CHLORINE RETENTION TIME (USUALLY 24 HOURS) UNLESS OTHERWISE NOTED.
41. ALL WASTEWATER MAINS SHALL BE CAMERA INSPECTED BY THE CONTRACTOR AFTER THE INSTALLATION OF ALL UTILITIES AND PRIOR TO FINAL ACCEPTANCE OF NEW WASTEWATER FACILITIES.
42. THE CONTRACTOR SHALL PROVIDE VERIFICATION OF COMPLETION AND COMPLIANCE OF ALL REQUIRED TESTS (PRESSURE, BACTERIOLOGICAL, BACKFLOW, VACUUM, MANDREL, VHS VIDEO OF SANITARY SEWER, ETC.) TO THE TOWN OF ADDISON.
43. THE CONTRACTOR SHALL CALL (972) 450-2847 TO REQUEST A FINAL WALK-THROUGH INSPECTION OF THE PUBLIC INFRASTRUCTURE WORK.
44. ANY ADJACENT PROPERTIES AFFECTED BY THE CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
45. BLUE REFLECTORIZED BUTTONS ARE TO BE INSTALLED IN THE CENTER OF THE DRIVE LANE NEAREST THE OUTSIDE CURB OPPOSITE ALL FIRE HYDRANTS

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER
7/11/12

NO.	REVISION	BY	DATE

Addison!
TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

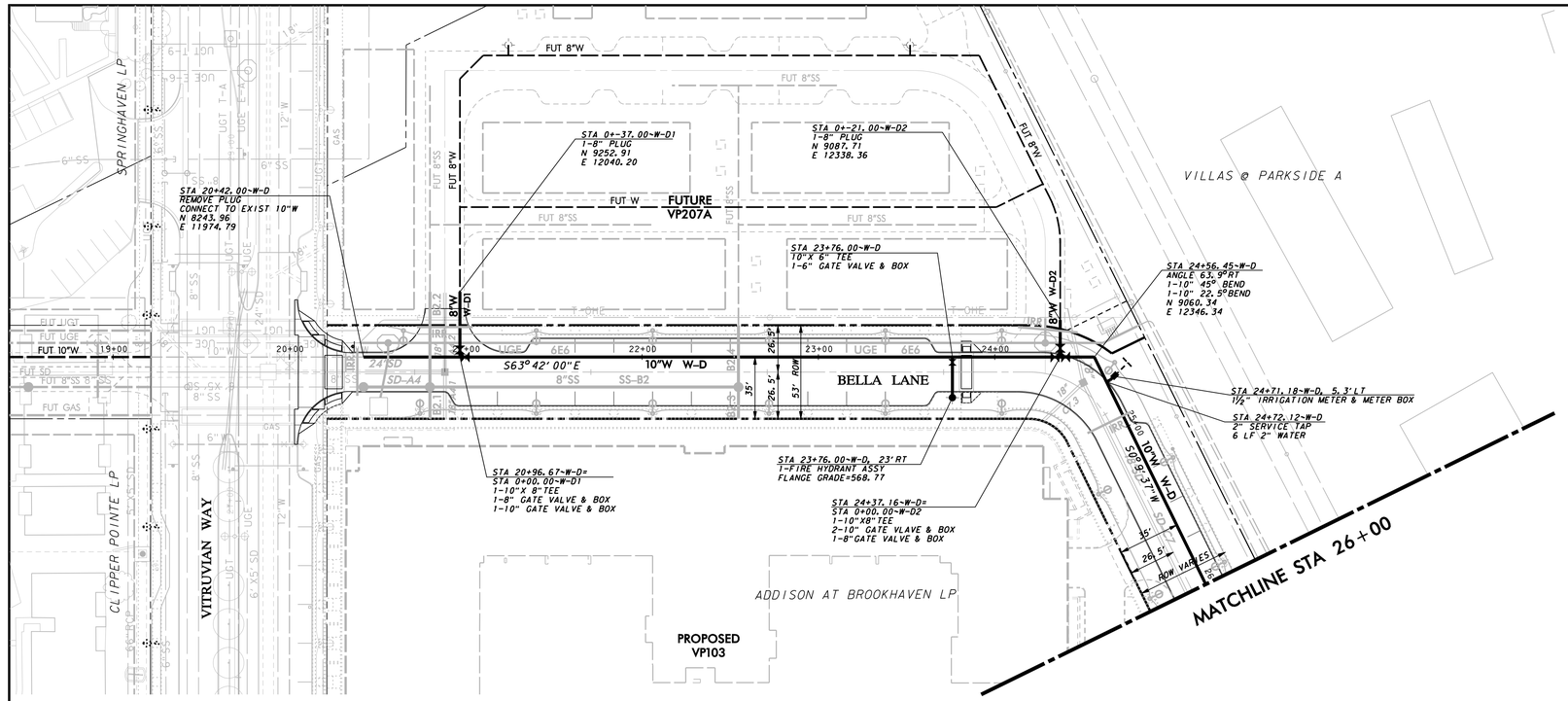
OVERALL WATER & SANITARY SEWER LAYOUT & NOTES

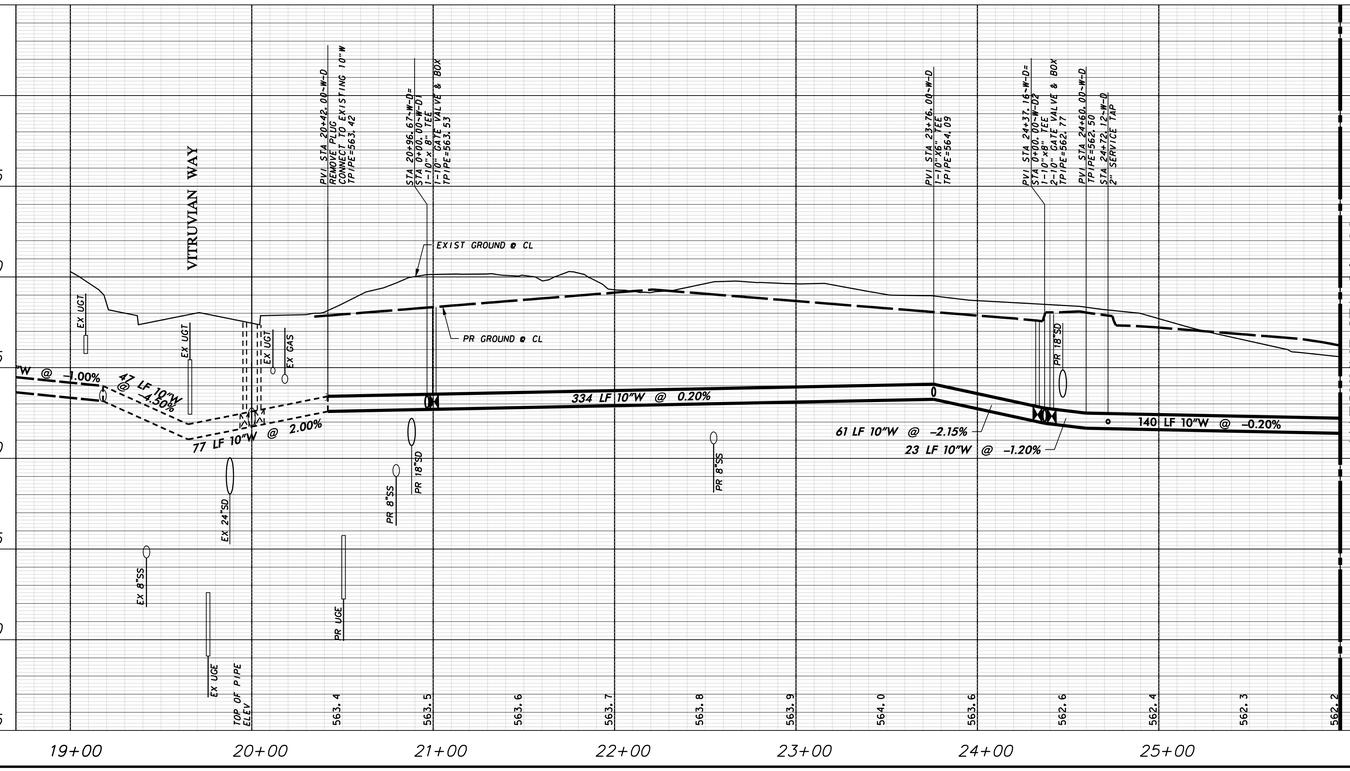
icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
250 W. Southlake Blvd., Suite 117
Southlake, Tx 76092 (817) 552-6210

PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW# 2010-08	27

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS – BELLA LANE

RECORD DRAWINGS 06/13/12





WARNING

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BM #2 REF. ELEVATION = 547.84
SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION OF VITRUVIAN WAY AND MARSH LANE.

PROFILE SCALE:
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SCALE: 1"=40' HORIZ
0 2 4 6 8
SCALE: 1"=4' VERT

STATE OF TEXAS
BRUCE F. DUNNE
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LICENSED PROFESSIONAL ENGINEER

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TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

WATER LINE PLAN & PROFILE
LINE D-STA. 20+42.00 TO 26+00.00

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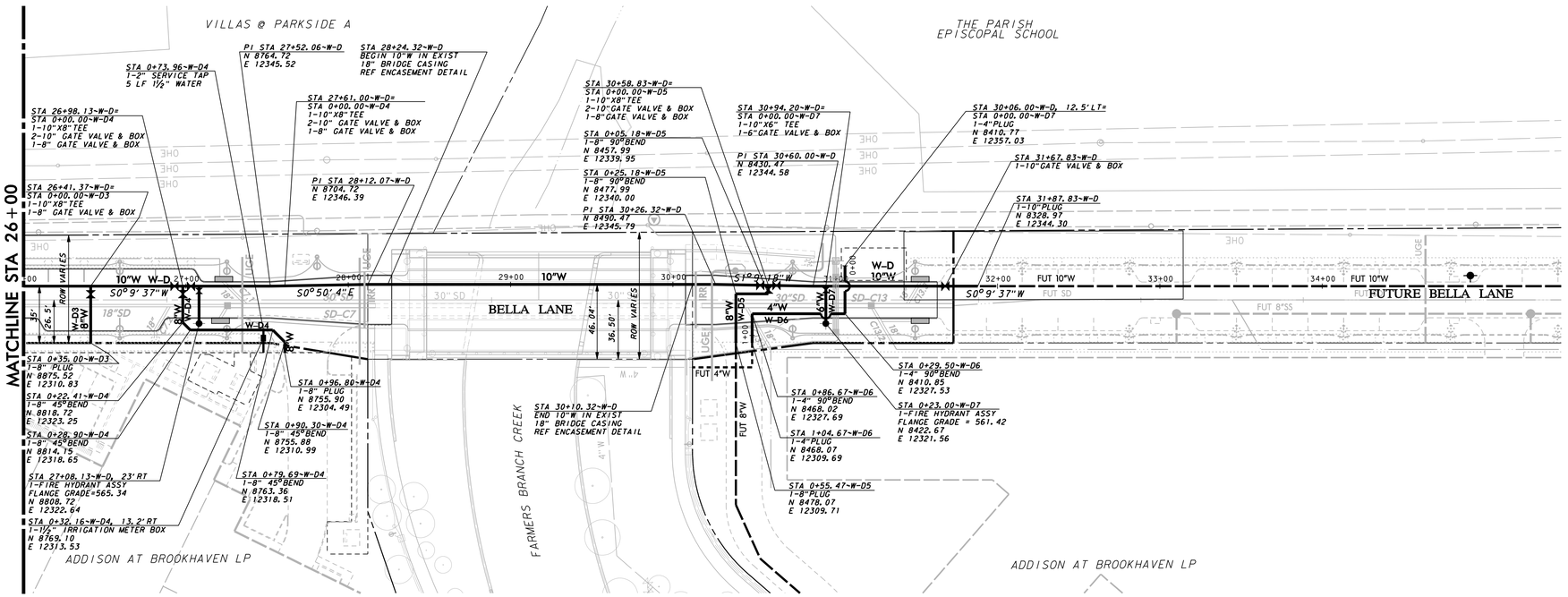
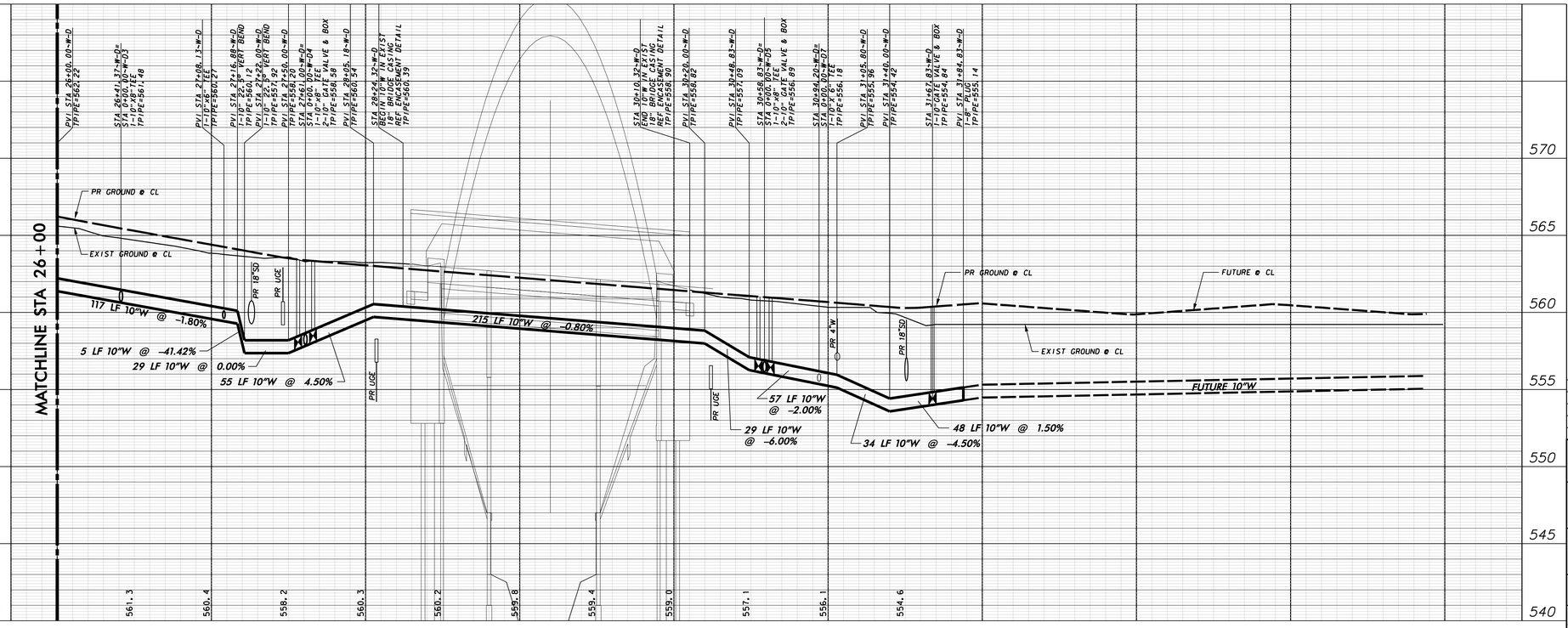
RECORD DRAWINGS 06/13/12

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE





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Addison!
TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

WATER LINE PLAN & PROFILE
LINE D-STA. 26+00.00 TO 31+72.83

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PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
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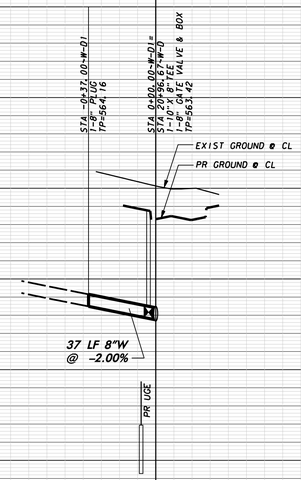
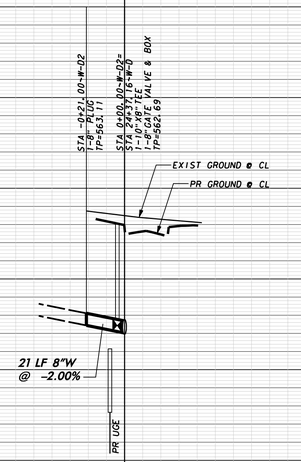
RECORD DRAWINGS 06/13/12

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE



W-D1



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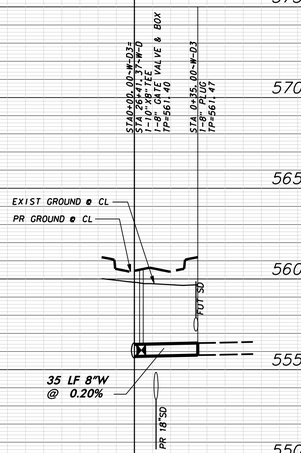

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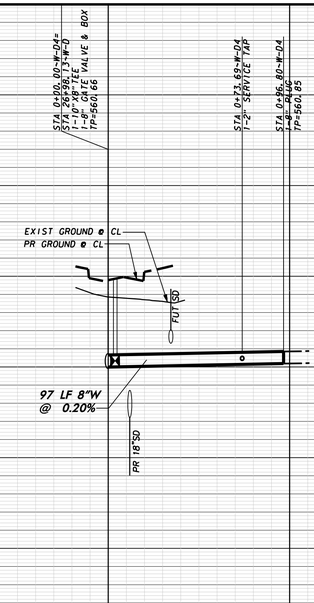

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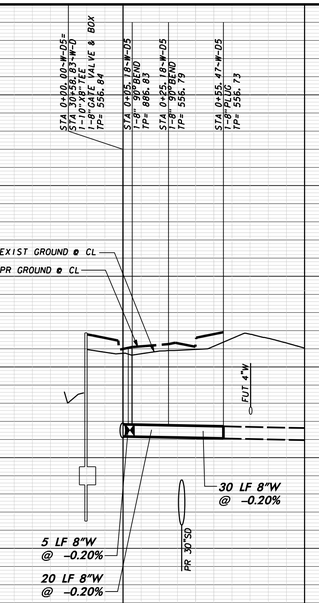

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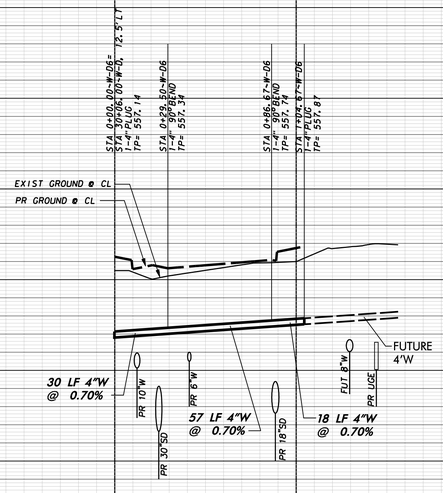

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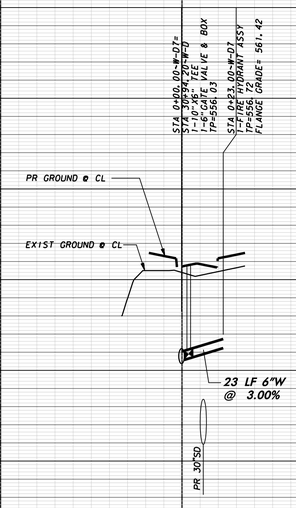

W-D7

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STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER
7/11/11

NO.	REVISION	BY	DATE

Addison TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

WATER LINE CROSSING PROFILES

icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
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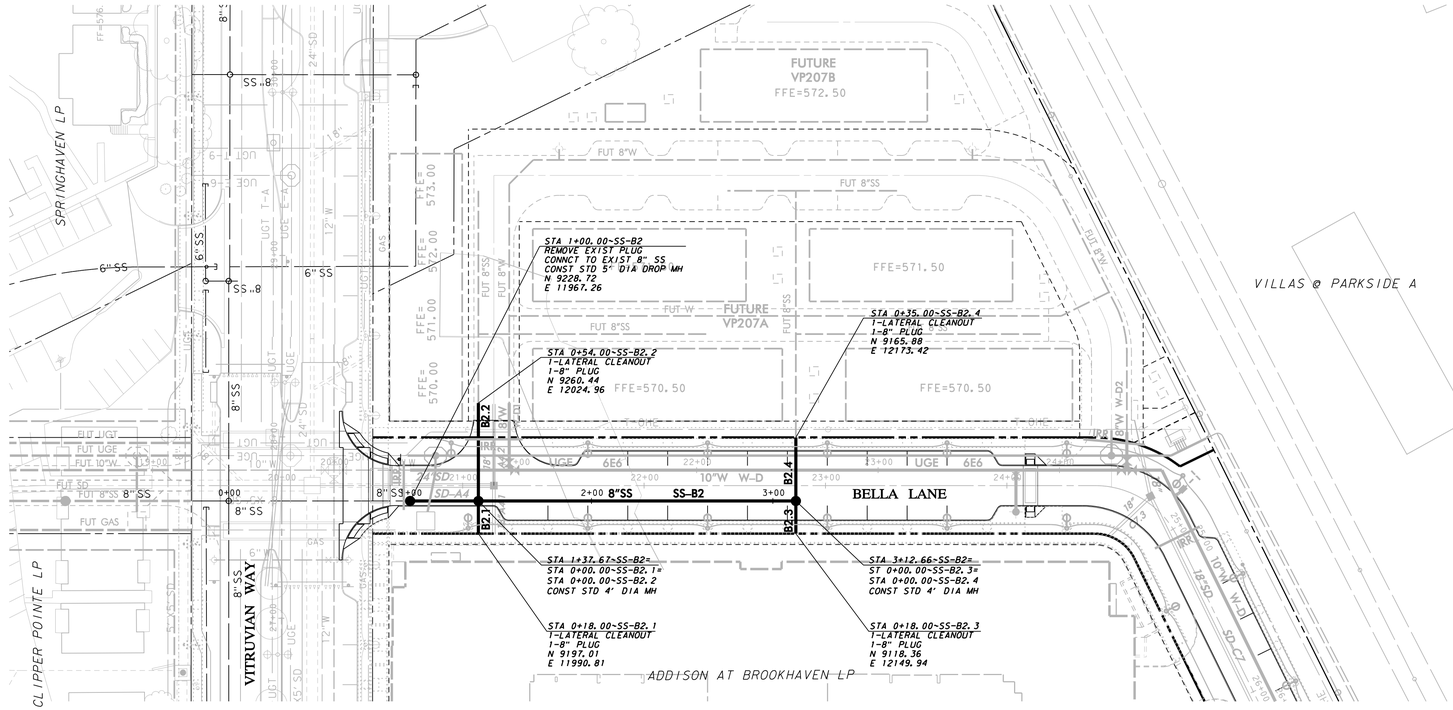
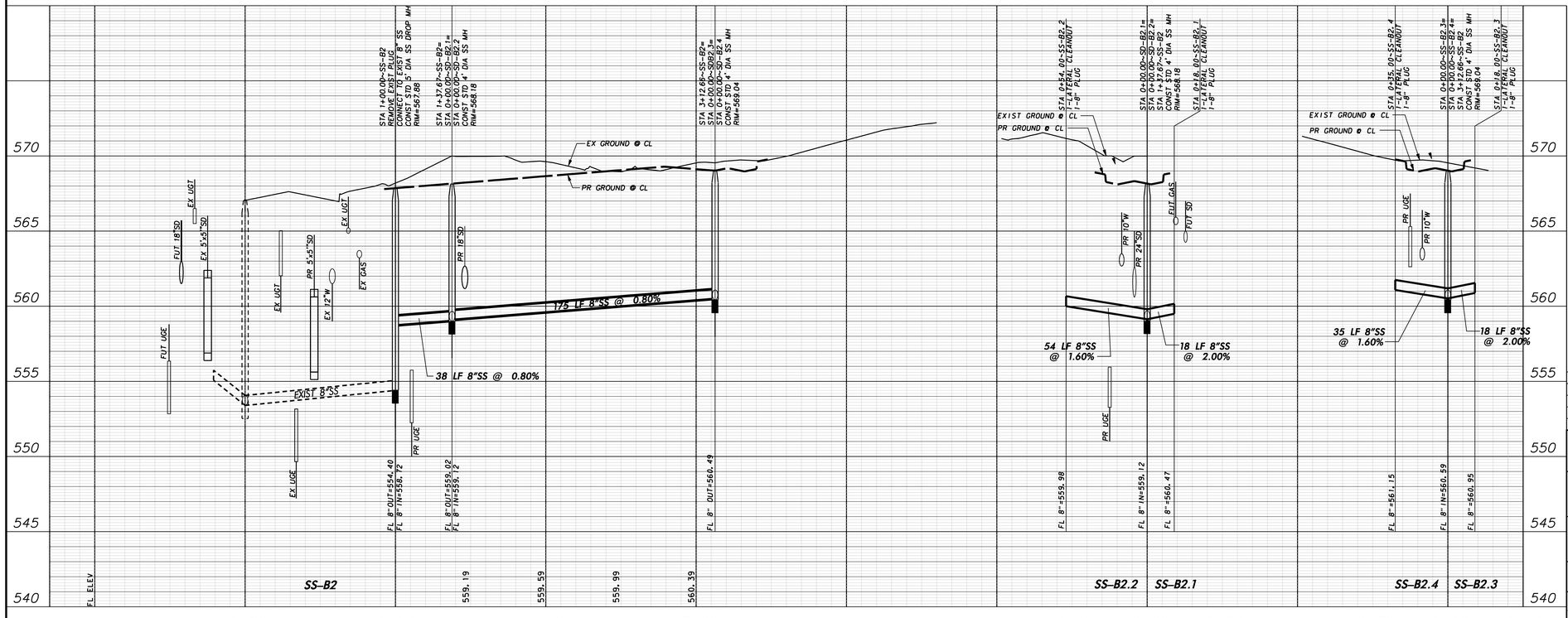
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW# 2010-08	30

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12





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STATE OF TEXAS
BRUCE F. DUNNE
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TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

SANITARY SEWER PLAN & PROFILE LINE B2

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PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
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PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

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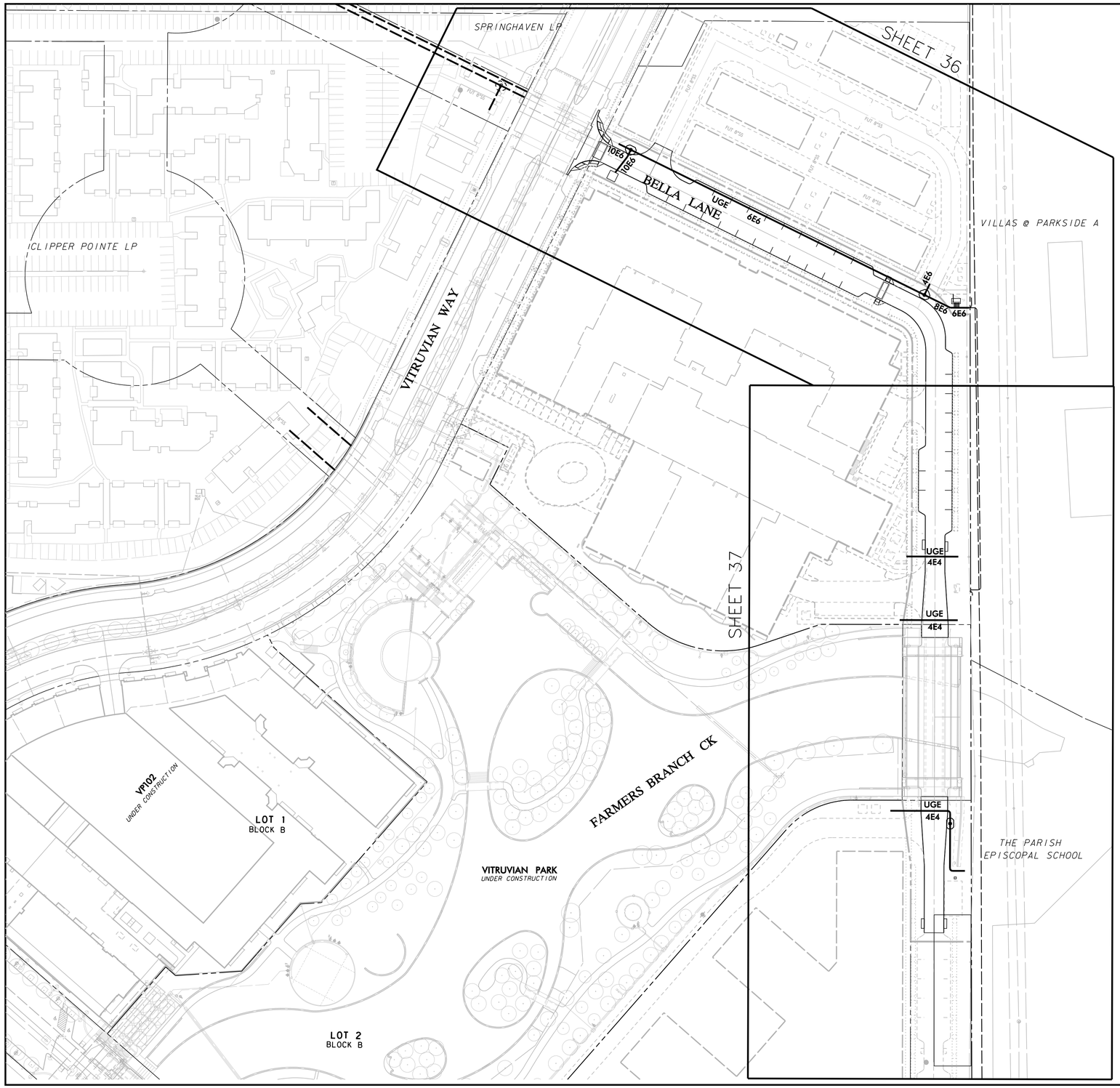

DUCT BANK GENERAL AND ELECTRICAL NOTES

1. *REFER TO CIVIL SHEET 3 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THIS PROJECT.*
2. *ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR MANHOLE AND DUCT STRUCTURE FACILITIES AS ESTABLISHED BY ONCOR ELECTRIC DELIVERY, LATEST EDITION, AND ANY AND ALL APPLICABLE SPECIFICATIONS AND REQUIREMENTS BY THE TOWN OF ADDISON. ONCOR SPECIFICATIONS INCLUDE THE FOLLOWING: DDS4 "SPECIFICATIONS FOR ELECTRICAL UNDERGROUND DISTRIBUTION SYSTEMS FROM PADMOUNTED TRANSFORMATION, SECONDARY SERVICE ACCOUNTS", MMDS "SPECIFICATIONS FOR MANHOLE AND DUCT STRUCTURE FACILITIES"; AND ONCOR UNDERGROUND DISTRIBUTION CONSRUCTION STANDARD DRAWINGS 205-480, 205-470, 205-475, 205-480, 205-485, AND 205-490. THE ONCOR STANDARD DRAWINGS SHALL TAKE PRECEDENCE OVER THE OMISSION OF OR CONFLICT WITH INFORMATION IN THE DDS-4 OR MMD-5 SHEETS.*
3. *PRIOR TO COMMENCING CONSTRUCTION, THE TOWN OF ADDISON, THE CONSULTING ENGINEERS, THE SUCCESSFUL CONTRACTOR, UTILITY COMPANIES, AND ANY OTHER AFFECTED PARTIES, SHALL CONVENE FOR A PRE-CONSTRUCTION CONFERENCE AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. THE APPLICABLE ONCOR STANDARD DRAWINGS, MMD-5 SHEETS, AND DDS-4 SHEETS SHALL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION CONFERENCE BY THE ONCOR REPRESENTATIVE.*
4. *THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM THE TOWN OF ADDISON PRIOR TO WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.*
5. *IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ANY PUBLIC UTILITY COMPANIES FOR LOCATION OF EXISTING FACILITIES IN OR NEAR THE WORK AREAS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLOWING:*

TOWN OF ADDISON (WATER, SEWER, SIGNALS)	*ATMOS ENERGY (GAS)*
ONCOR ELECTRIC DELIVERY	*VERIZON / MCI*
AT&T (SOUTHWESTERN BELL)	*TIME-WARNER CABLE*

6. *THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER (SIX SETS EACH), FOR APPROVAL OF ALL MATERIALS TO BE ADDED TO THE PUBLIC INFRASTRUCTURE, PRIOR TO INCORPORATING MATERIALS INTO THE JOB.*
7. *THE CONTRACTOR SHALL PROVIDE A MAINTENANCE BOND FOR PUBLIC INFRASTRUCTURE WORK IN THE FOLLOWING AMOUNTS:*
   - *100% FOR VALUATIONS LESS THAN OR EQUAL TO $5,000.*
   - *$5,000 FOR VALUATION GREATER THAN $5,000. AND LESS THAN $50,000.*
   - *10% FOR VALUATIONS GREATER THAN $50,000.*

   BONDS SHALL BE FOR A PERIOD OF TWO YEARS BEGINNING WITH THE DATE OF FINAL ACCEPTANCE BY THE TOWN.
8. *THE CONTRACTOR SHALL FULLY COMPLY WITH, AND SUPPLEMENT AS NECESSARY, THE CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN WHILE CONDUCTING HIS ACTIVITIES ON THIS PROJECT.*
9. *THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT WILL APPROVE AND/OR DETERMINE THE TRAFFIC CONTROL PLAN AND WORKING HOURS. CONTACT THE ASSISTANT CITY ENGINEER AT (972) 450-2857 OR THE PUBLIC WORKS INSPECTOR AT (972) 450-2871.*
10. *IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, AND SUPPLEMENT AS NECESSARY, THE TRAFFIC CONTROL MEASURES ON THIS PROJECT, INCLUDING PROVIDING ADEQUATE FLAGMEN, SIGNAGE, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION IN ACCORDANCE WITH THE "TEXAS MANUAL OF UNIFORM CONTROL DEVICES". THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS OR PROVIDE AN ALL-WEATHER DETOUR AROUND THE CONSTRUCTION SITE, INCLUDING PUBLIC NOTIFICATION AND SIGNING.*
11. *TEMPORARY OR PERMANENT BARRICADES SHALL REMAIN AT ALL POINTS OF INGRESS OR EGRESS TO PREVENT PUBLIC USE UNTIL THE WORK RECEIVES FINAL ACCEPTANCE.*
12. *THE CONTRACTOR SHALL COVER ALL OPEN EXCAVATIONS WITH ANCHORED STEEL PLATING, DURING NON-WORKING HOURS, ALONG EXISTING ROADWAYS AND TRAFFIC AREAS.*
13. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION, INCLUDING PROVIDING ALL TEMPORARY STRUCTURES OR IMPROVEMENTS AS NECESSARY FOR THE SAFETY OF THE PUBLIC.*
14. *THE TOWN OF ADDISON WILL PROVIDE A GEOTECHNICAL LABORATORY TO PERFORM APPROPRIATE TESTING DURING CONSTRUCTION ACTIVITIES. ANY TEST THAT FAILS TO MEET ONCOR AND/OR TOWN OF ADDISON REQUIREMENTS SHALL BE RETESTED AT THE CONTRACTORS EXPENSE.*
15. *THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, FENCES, TREES, SHRUBS, UTILITY SERVICES, BUILDING FOUNDATIONS AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW THE GROUND, THE COST OF WHICH SHALL BE INCLUDED IN THE CONTRACT AMOUNT.*
16. *ALL APPLICABLE CODES AND ORDINANCES SHALL BE FOLLOWED IN THE DESIGN AND CONSTRUCTION OF THE MANHOLE AND CONDUIT LINE SYSTEM. INCLUDED, BUT NOT LIMITED TO, ARE THE FOLLOWING:*
   - *A. LOCAL TOWN OF ADDISON BUILDING CODES*
   - *B. THE NATIONAL ELECTRIC SAFETY CODE (NESC)*
   - *C. THE CONTRACTOR SHALL BE FAMILIAR WITH AND SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THESE SEPCIFICATIONS AND WITH OSHA REQUIREMENTS. IF THERE ARE ANY CONFLICTS OR OMISSIONS, THE OSHA REQUIREMENTS SHALL BE MET. ANY CONFLICT OR OMISSION SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF COMPLYING WITH OSHA REQUIREMENTS.*
   - *D. LOCAL TOWN OF ADDISON LOCATION AND COORDINATION POLICY (IF APPLICABLE).*
   - *E. THE AMERICAN CONCRETE INSTITUTE (ACI).*
   - *F. THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).*
   - *G. TEXAS STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION – UTILITY ACCOMMODATION POLICY.*
   - *H. LOCAL, CITY, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.*
17. *THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES, WHETHER INDICATED ON THE DESIGN DRAWINGS OR DISCOVERED DURING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ONCOR'S AUTHORIZED REPRESENTATIVE WHEN ANY UTILITY NOT PREVIOUSLY INDICATED OR INACCURATELY INDICATED ON THE DESIGN DRAWING IS DISCOVERED.*
18. *THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND IMPLEMENTING A TRENCH SAFETY PROGRAM. THREE COPIES OF A TRENCH SAFETY SPECIFICATION (PREPARED AND CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS) SHALL BE SUPPLIED TO ONCOR ELECTRIC DELIVERY BEFORE CONSTRUCTION BEGINS.*
19. *THE CONTRACTOR SHALL SUPPLY ALL MATERIALS FOR THIS JOB INCLUDING MANHOLES, NECKS, FRAMES AND COVERS, CON-SEAL, GROUND RODS, PVC CONDUIT, PVC BENDS, PVC COUPLINGS, TIE-WRAPS, CONDUIT SPACERS, PVC ADHESIVE, CONCRETE, SELECT BACKFILL, PULL ROPES, PRE-CAST SWITCHGEAR PADS, ELECTRONIC CABLE MARKERS, MANHOLE LADDER RUNGS, ETC., PER ONCOR ELECTRIC DELIVERY SPECIFICATIONS UNLESS OTHERWISE SPECIFIED, IN WRITING.*
20. *CONCRETE ENCASED DUCT STRUCTURE INSTALLATION SHALL BE PERFORMED AS FOLLOWS:*
   - *A. ALL CONDUITS SHALL BE CONCRETE ENCASED WITH A MINIMUM OF 3" OF CONCRETE. THE TOP CONDUITS OF ANY DUCT STRUCTURE SHALL HAVE A 3" OR 6" MINIMUM COVER DEPENDING ON LOCATION SITE. REFER TO CONSTRUCTION DRAWINGS FOR DUCT SECTION. ALL CONCRETE ENCASEMENT SHALL HAVE A PATTERN FINISH.*
   - *B. CONCRETE SHOULD BE 5 SACK, PORTLAND TYPE 1 CEMENT, ½" MAXIMUM SIZE AGGREGATE, 3000 PSI AT 28 DAYS. THE SLUMP OF THE CONCRETE MAY BE INCREASED BY THE CONTRACTOR WITH THE APPROVAL BY THE ONCOR INSPECTOR, IN ORDER TO FACILITATE A WETTER MIX TO INSURE TOTAL ENCASEMENT OF THE DUCT. HOWEVER, THE SLUMP SHOULD NOT BE INCREASED TO THE POINT WHERE THE ULTIMATE YIELD STRENGTH OF THE CONCRETE IS JEOPARDIZED.*
   - *C. ALL CONCRETE SHALL BE INSTALLED BY THE USE OF A HOPPER, TRIMMIE, CHUTE, OR PUMP TRUCK UNLESS OTHERWISE SPECIFIED BY ONCOR ELECTRIC DELIVERY INSPECTOR. AT NO TIME SHALL CONCRETE BE PLACED WITH A FRONT-END LOADER OR ANY OTHER SIMILAR TYPE OF MACHINERY.*
   - *D. THE DUCT LINE SHALL BE SECURED TO EARTH AT EACH SPACER LOCATION PRIOR TO POURING CONCRETE TO PREVENT FLOATING OR RACKING OF THE DUCT DURING PLACEMENT OF THE CONCRETE.*
   - *E. CONDUIT, BENDS, ELBOWS AND COUPLINGS SHALL BE PVC CONDUIT, MINIMUM 6" TYPE DB, TC-6 DB-60/ASTM F-512, AND 90 DEGREES CENTIGRADE RATED OR GREATER UNLESS OTHERWISE SPECIFIED. ALL PVC 6" BENDS AND ELBOWS SHALL HAVE A 36" RADIUS.*
   - *F. SPACERS SHALL BE CARLON #288RLN (BASE) AND #289 RLN (INTERMEDIATE), SPACED AT 5 FOOT INTERVALS (MAX). SPACERS WILL BE REQUIRED AND TIED TOGETHER WITH NON-METALLIC TIE-WRAPS. SPACERS SHALL ALSO BE USED TO "HOLD-DOWN" THE TOP ROW OF DUCTS.*
   - *G. FINISH BACKFILL SHOULD BE PLACED IN LEVEL, UNIFORM LIFTS, WITH EACH LIFT COMPACTED TO THE MINIMUM DRY DENSITY WITHIN THE COMPACTION SOIL MOISTURE RANGES RECOMMENDED. THE LOOSE LIFT THICKNESS SHOULD NOT EXCEED SIX (6) INCHES. EACH LAYER SHOULD BE PROPERLY PLACED, MIXED, SPREAD, AND COMPACTED TO BETWEEN NINETY-FIVE (95) AND ONE HUNDRED (100) PERCENT OF STANDARD PROCTOR DENSITY AT 0% TO 3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 698.*
   - *H. WHEN COMPLETE, EACH CONDUIT INSTALLED WILL BE CHECKED BY PULLING BOTH A MANDREL AND A SWAB THROUGH THE ENTIRE LENGTH OF CONDUIT.*
   - *I. DUCT SPACERS ARE TO PROVIDE 3 INCHES OF VERTICAL AND HORIZONTAL SEPARATION BETWEEN CONDUITS.*
   - *J. RED POWDER CONCRETE DYE IS TO BE PLACED ON THE DUCT ENCASEMENT CAP IMMEDIATELY AFTER THE CONCRETE POUR HAS TAKEN PLACE TO AID WITH FUTURE LOCATION OF PRIMARY DUCT.*
   - *K. CONDUITS FOR INCOMPLETE DUCT LINES (STUBS) ARE TO REMAIN EXPOSED FROM THE ENCASEMENT FOR FUTURE RETRIEVAL, BE CAPPED WATERTIGHT AND HAVE AN ELECTRONIC MARKER INSTALLED.*
   - *L. EACH CONDUIT OF AN ENCASED DUCT IS TO HAVE A 6000 POUND PULL TAPE INSTALLED FOR FUTURE CABLE PULLING*
21. *CONCRETE MANHOLE INSTALLATION SHALL BE PERFORMED AS FOLLOWS:*
   - *A. PRECAST TYPE, UNLESS OTHERWISE NOTED, SHOULD BE SUPPLIED BY BROOKS/OLD CASTLE (OR OTHER APPROVED SUPPLIER) AND BE OCTAGONAL SHAPE, 3-SECTIONS 15,000 LBS./SECTION UNLESS OTHERWISE SPECIFIED.*
   - *B. 6 INCHES MINIMUM PEA GRAVEL OF CUSHION SHALL BE INSTALLED IN THE BOTTOM OF THE EXCAVATED AREA PRRIOR TO THE MANHOLE INSTALLATION. SAND BASE MAY BE USED WITH PRIOR ONCOR APPROVAL.*
   - *C. SELECT BACKFILL SHOULD BE INSTALLED AROUND ALL MANHOLES AND COMPACTED TO 95% MINIMUM. FLOWABLE MATERIAL MAY BE USED AS SELECT BACKFILL WHEN REQUESTED.*
   - *D. CONTRACTOR SHALL INSTALL THE FRAME/COVER AND NECK. ONCOR ELECTRIC DELIVERY CONSTRUCTION PLANS SHOW THE APPROXIMATE ENTRANCE ELEVATION; HOWEVER IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE NECESSARY AMOUNT OF NECK TO BRING THE TOP OF THE COVER 2" ABOVE FINISHED GRADE (OR FLUSH WITH STREET GRADE WHEN COVER IS IN STREET). SAW CUTTING OR GROUT-FILL MAY BE REQUIRED TO OBTAIN THE APPROPRIATE ENTRANCE ELEVATION.*
   - *E. THE CONTRACTOR SHALL SUPPLY FOUR (4) 8' X 5/8" COPPER CLAD GROUND ROD, WELD TYPE, IN EACH MANHOLE. GROUND ROD SHALL BE VERTICALLY DRIVEN INTO UNDISTURVED SOIL. IF ROCK IS ENCOUNTERED, GROUNDING SHALL BE AS DIRECTED BY ONCOR ELECTRIC DELIVERY INSPECTOR.*
   - *F. THE CONTRACTOR SHALL INSTALL A 5' X 5' X 6" CONCRETE PAD AROUND ALL MANHOLE ENTRANCES IN ALL NON-PAVED AREAS. SEE STANDARD DETAIL DRAWINGS FOR REINFORCED STEEL REQUIREMENTS.*
   - *G. ALL JOINTS BETWEEN MANHOLE SECTIONS SHALL BE MADE WATERTIGHT AT THE TIME OF INITIAL INSTALATION.*
   - *H. DO NOT REMOVE THE "KNOCK OUT" MEMBRANES OF ANY UNUSED TERMINATOR POSITION. DUCT PLUGS SHOULD BE INSTALLED IN ALL CONDUITS THAT ARE UNOCCUPIED BY CABLE.*
   - *I. FINAL SLOPE OF TOP OF MANHOLE SHALL BE 2" MINIMUM TO DRAIN WATER FROM TOP OF MANHOLE.*
   - *J. ANY MANHOLE WITH GREATER THAN 4' NECK SHALL HAVE LADDER RUNGS FIELD INSTALLED PER ONCOR STANDARD DRAWING 205-480. OLD CASTLE IS AN APPROVED SUPPLIER OF LADDER RUNGS.*
22. *THE ONCOR ELECTRIC DELIVERY INSPECTOR IS TO INSPECT ALL MANHOLE INSTALLATIONS PRIOR TO THE PLACING OF BACKFILL AND ALL CONDUIT INSTALLATIONS PRIOR TO THE PLACEMENT OF CONCRETE.*
23. *THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH TRENCHING OPERATIONS FOR OTHER UTILITIES INCLUDING GAS AND TELECOMMUNICATION SERVICES, LANDSCAPE IRRIGATION CONDUITS, LIGHTING CONDUITS, STREETSCAPE IMPROVEMENTS, ETC.*
24. *CONCRETE SHALL NOT BE PLACED WHEN THE TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AND FALLING, BUT MAY BE PLACED WHEN THE TEMPERATURE IS ABOVE 35 DEGREES FAHRENHEIT AND RISING. THE TEMPERATURE READING SHALL BE TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.*
25. *THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO ALL EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.*
26. *THE CONTRACTOR SHALL PROVIDE VERIFICATION OF COMPLETION AND COMPLIANCE OF ANY AND ALL REQUIRED TESTS TO THE SATISFACTION OF ONCOR ELECTRIC DELIVERY.*
27. *THE CONTRACTOR SHALL CONTACT ONCOR ELECTRIC DELIVERY TO REQUEST A FINAL WALK-THROUGH INSPECTION OF THE ELECTRIC DUCT BANK INFRASTRUCTURE WORK.*
28. *ANY ADJACENT PROPERTIES AFFECTED BY THE CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.*
29. *ONCOR ELECTRIC DELIVERY INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 2 HOURS PRIOR TO THE DELIVERY OF CONCRETE AND SHALL BE PRESENT DURING PLACEMENT.*
30. *CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE APPROPRIATE ONCOR ELECTRIC DELIVERY AUTHORIZED PERSONNEL PRIOR TO ANY MODIFICATION TO THE ORIGINAL DESIGN DRAWINGS THAT WILL CHANGE THE NUMBER OF BENDS OR ADD 10 PERCENT OR MORE TO THE OVERALL CONDUIT LENGTH FOUND ON THE ORIGINAL DESIGN PLAN. THIS WRITTEN REQUEST MUST BE PROVIDED PRIOR TO IMPLEMENTATION OF CHANGES.*
31. *EQUIPMENT PADS SHALL BE INSTALLED PER DDS-4 SPECIFICATIONS. PIERS AND BEAMS ARE REQUIRED ON ALL EQUIPMENT PADS UNLESS WAIVED BY COMPANY INSPECTOR. IF REQUIRED, STABILIZATION METHOD(S) WILL BE DETERMINED BY THE COMPANY INSPECTOR. THE DEPTH SHALL EXTEND TO ROCK OR A CHANGE IN SOIL CONDITIONS SUFFICIENT TO BEAR THE LOAD OF PAD AND TRANSFORMER TO PREVENT SETTLEMENT DUE TO UNDERCUTTING FOR CONDUIT BEND INSTALLATION OR WASHING DUE TO DRAINAGE.*

STATE OF TEXAS
BRUCE F. DUNNE
62654
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TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PAVING, DRAINAGE & UTILITY IMPROVEMENTS
BELLA LANE

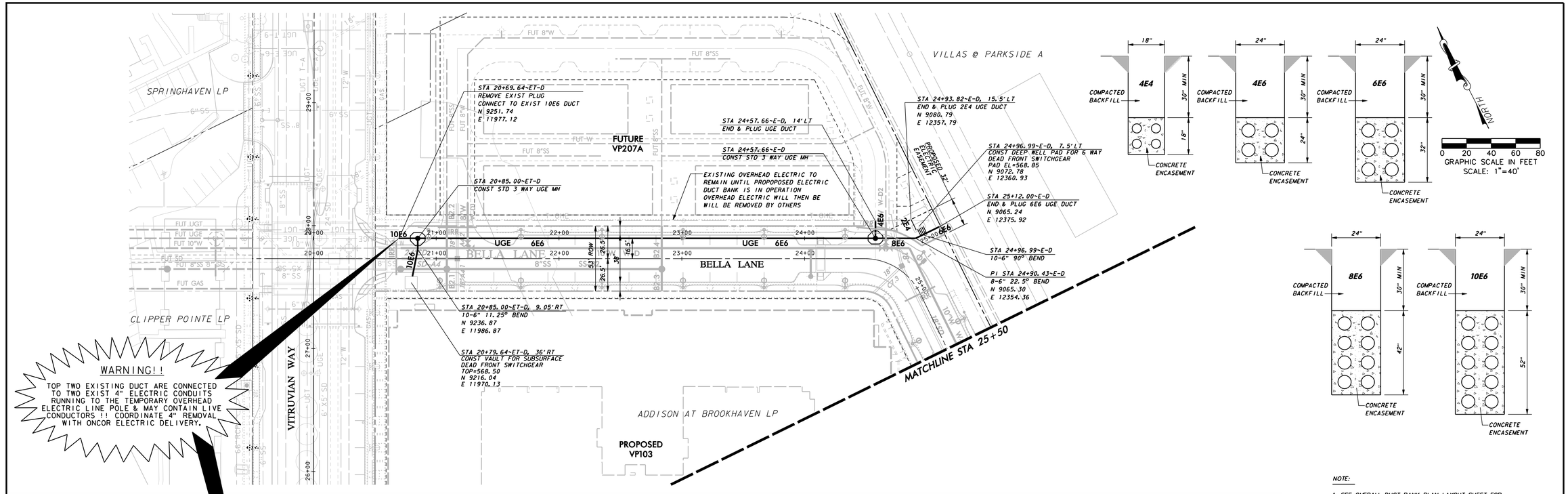
OVERALL DUCT BANK LAYOUT & NOTES

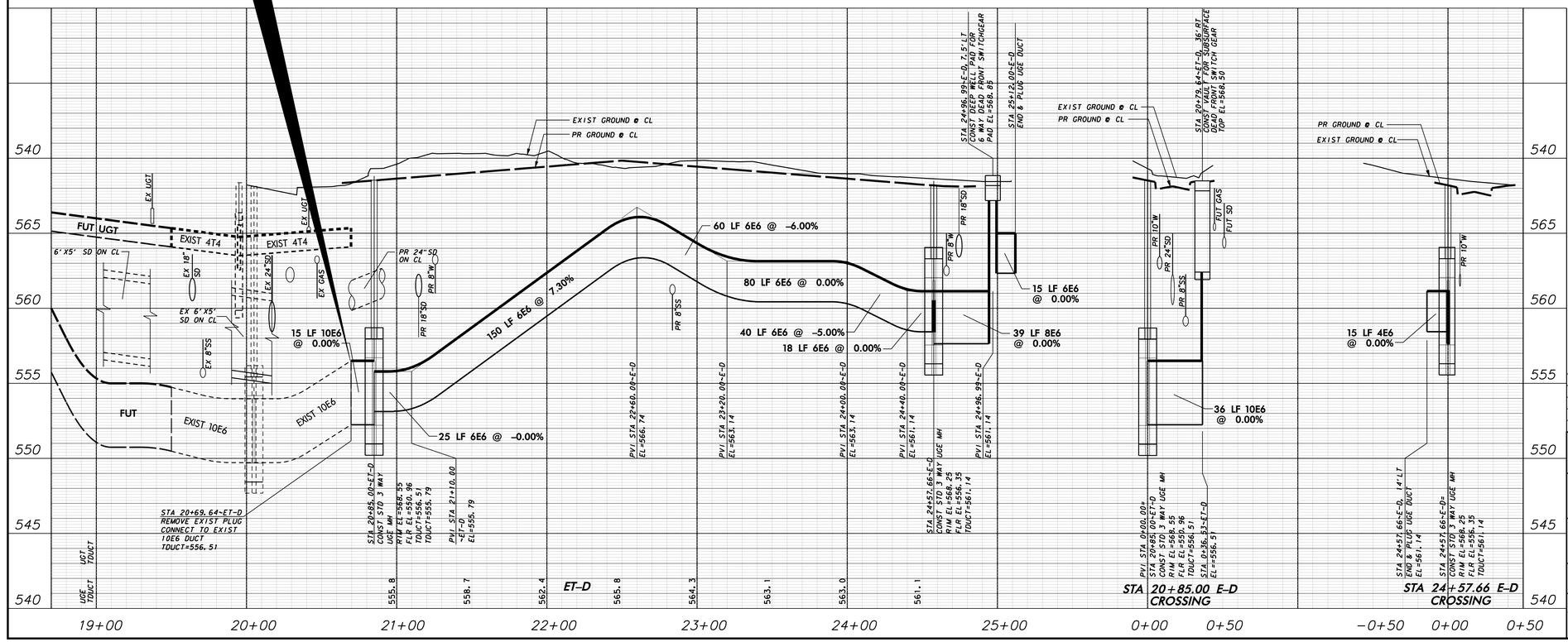
icon Consulting Engineers, Inc.
Civil Engineers - Designers - Planners
250 W. Southlake Blvd., Suite 117
Southlake, Tx 76092 (817) 552-8210

PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-03	ICE	ICE	FEB 01, 2011	PW # 2010-08	35

RECORD DRAWINGS 06/13/12

PAVING, DRAINAGE, & UTILITY IMPROVEMENTS – BELLA LANE





NOTE:

1. SEE OVERALL DUCT BANK PLAN LAYOUT SHEET FOR UGE AND UGT GENERAL NOTES.

WARNING

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

BM #1 REF. ELEVATION = 559.47
SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN END NOSE, MARSH LANE 1127' NORTH OF VITRUVIAN WAY.

BM #2 REF. ELEVATION = 547.84
SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION OF VITRUVIAN WAY AND MARSH LANE.

PROFILE SCALE:
0 20 40 60 80
SCALE: 1"=40' HORIZ
0 2 4 6 8
SCALE: 1"=4' VERT

STATE OF TEXAS
BRUCE F. DUNNE
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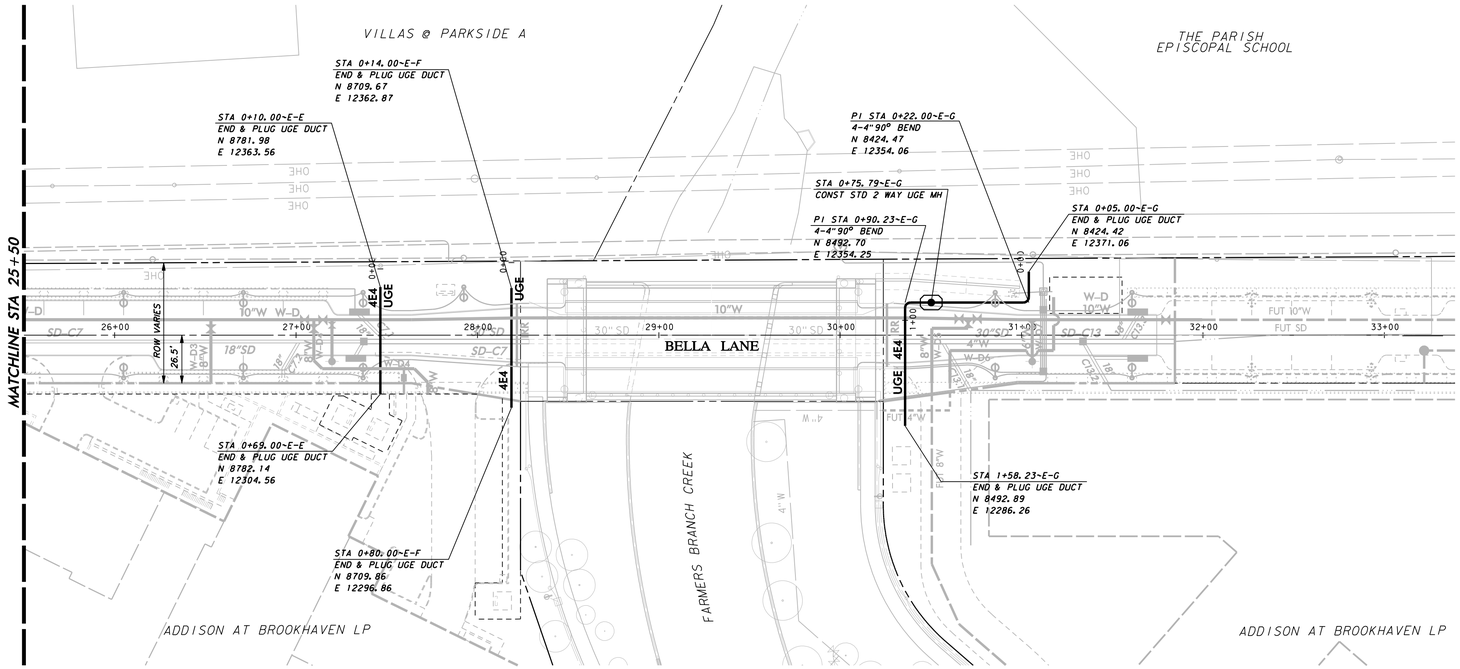
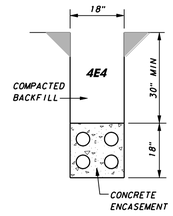
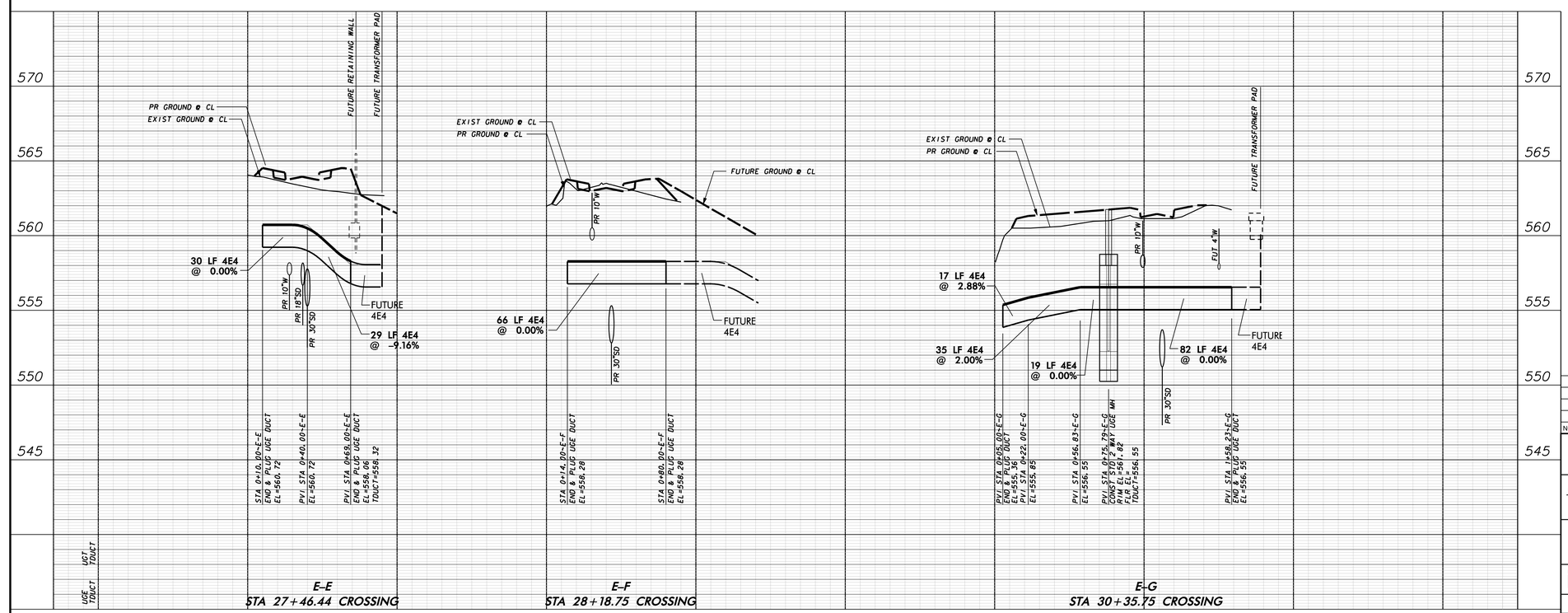
PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12







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PAVING, DRAINAGE, & UTILITY IMPROVEMENTS - BELLA LANE

RECORD DRAWINGS 06/13/12