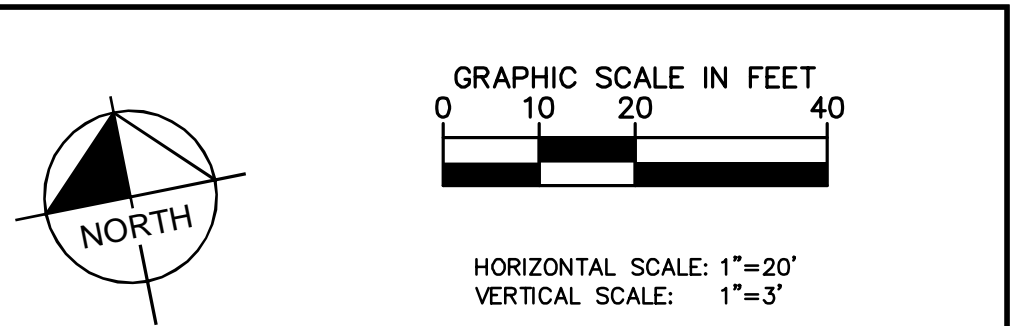
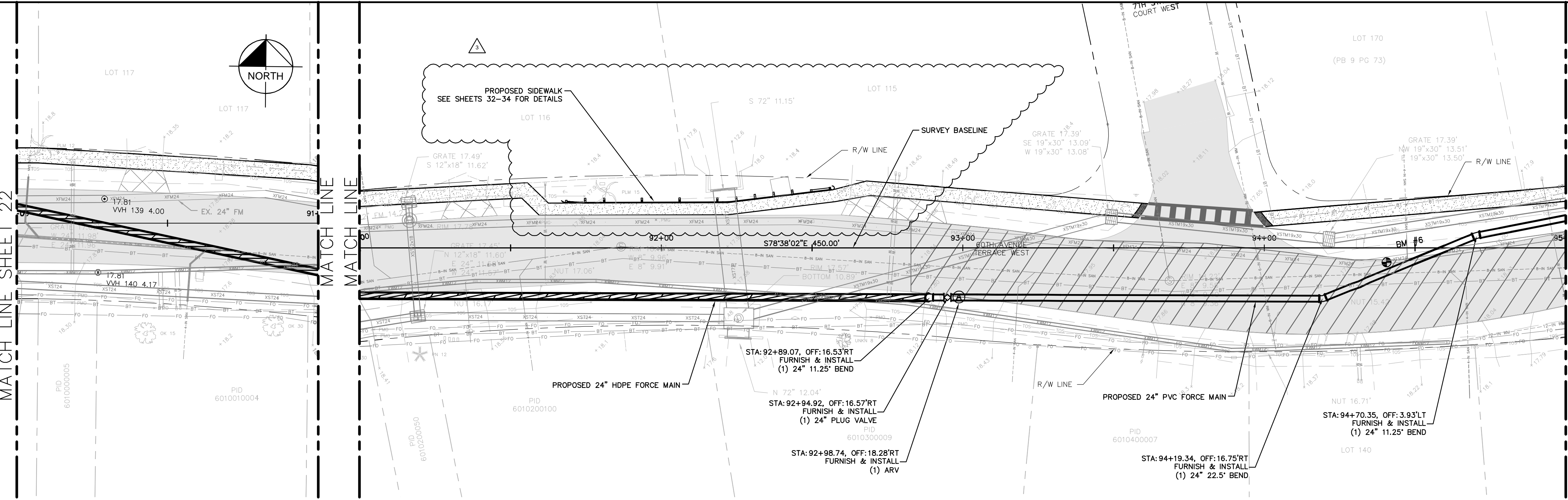
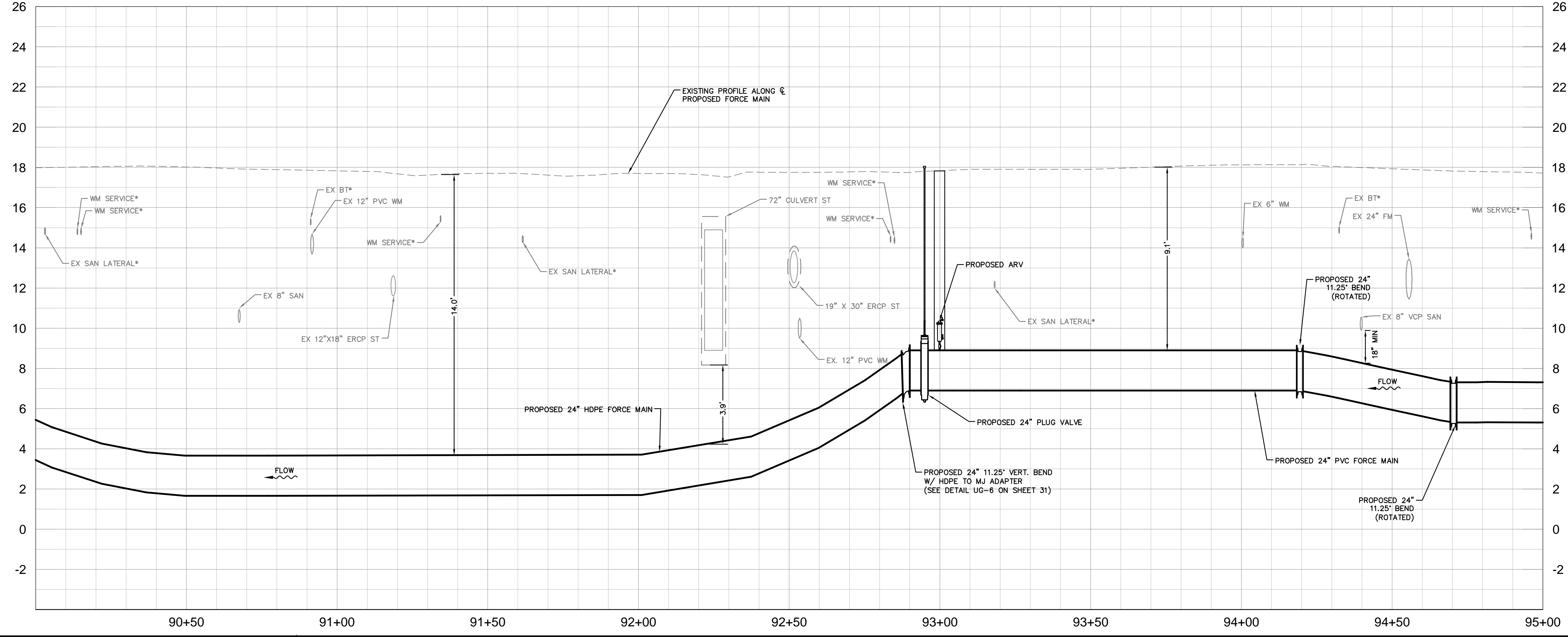
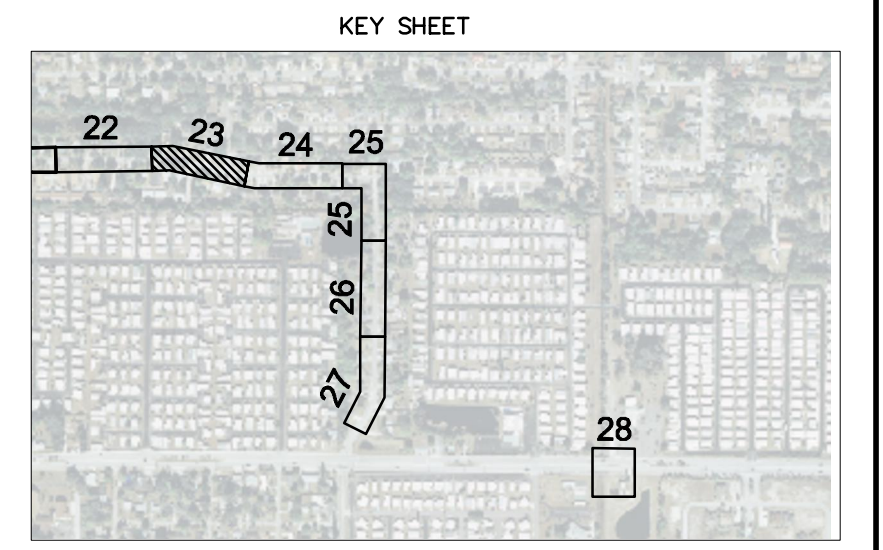
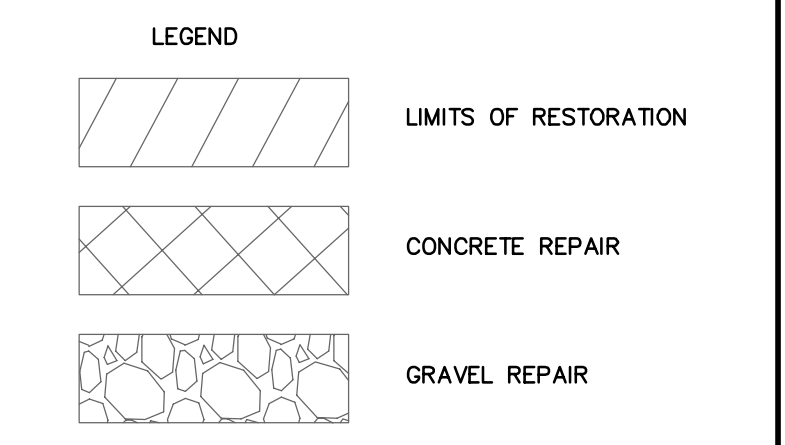


This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of any improper reference on this document without written authorization and observation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



- NOTES:
- REFER TO SHEET 03 FOR ADDITIONAL SUBSURFACE UTILITY EXPLORATION INFORMATION.
 - CONTRACTOR TO TAKE PRECAUTION WHEN CONSTRUCTING FORCE MAIN AROUND INLET STRUCTURE TO PREVENT UNDERMINED.
 - CONTRACTOR TO FOLLOW RESTRAINED LENGTHS SET IN RESTRAIN LENGTH DETAILS ON SHEET 31.
 - CONSTRUCTION DEWATERING SHALL BE CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO CHAPTERS 62-621.300 AND 62-620 OF THE FLORIDA ADMINISTRATIVE CODE (FAC).



*NOTES:
 THE ELEVATIONS OF THE UTILITIES MARKED WITH AN ASTERISK (*) HAVE BEEN ASSUMED ON THE BASIS OF TYPICAL ANTICIPATED SOIL COVERAGE. CONTRACTOR SHALL NOT RELY ON THIS INFORMATION FOR CONSTRUCTION, BUT SHALL BE RESPONSIBLE FOR FIELD LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL UTILITIES CROSSING THE PROPOSED FORCE MAIN. CONTRACTOR SHALL INCLUDE IN THE UNIT COST OF THE SUBJECT FORCE MAIN CONSTRUCTION, THE COST OF UTILITY ADJUSTMENTS NECESSARY TO ATTAIN DESIGN MINIMUM SEPARATION FOR UTILITIES CONFLICTING WITH THE CONSTRUCTION OF THE PROPOSED FORCE MAIN. INTERRUPTIONS OF ANY EXISTING UTILITY SERVICES SHALL BE NOTICED TO EFFECTED CUSTOMERS A MINIMUM OF 48 HOURS IN ADVANCE AND SHALL NOT EXCEED 4 HOURS IN DURATION.
 WHERE CONCRETE REPAIRS ARE NECESSARY AND EXPANSION JOINTS ARE PRESENT, CONTRACTOR TO REMOVE AND REPLACE CONCRETE UP TO THE NEXT EXPANSION JOINT; OTHERWISE, REPLACE CONCRETE AS NECESSARY.

GROUNDWATER / DEWATERING NOTE:
 THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



No.	REVISIONS	DATE	BY
1	ADDENDUM #9	2/23/2017	JWW
2	ADDENDUM #6	2/15/2017	JWW
3	ADDENDUM #4	02/01/2017	JWW

Kimley»Horn
 © 2016 KIMLEY-HORN AND ASSOCIATES, INC.
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602
 PHONE: 813-620-1460
 WWW.KIMLEY-HORN.COM CA 00000696

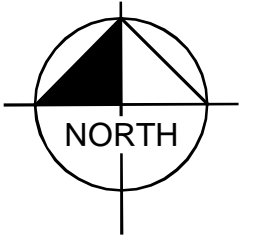
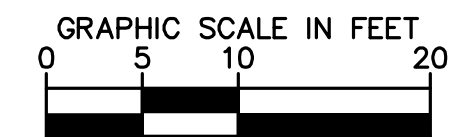
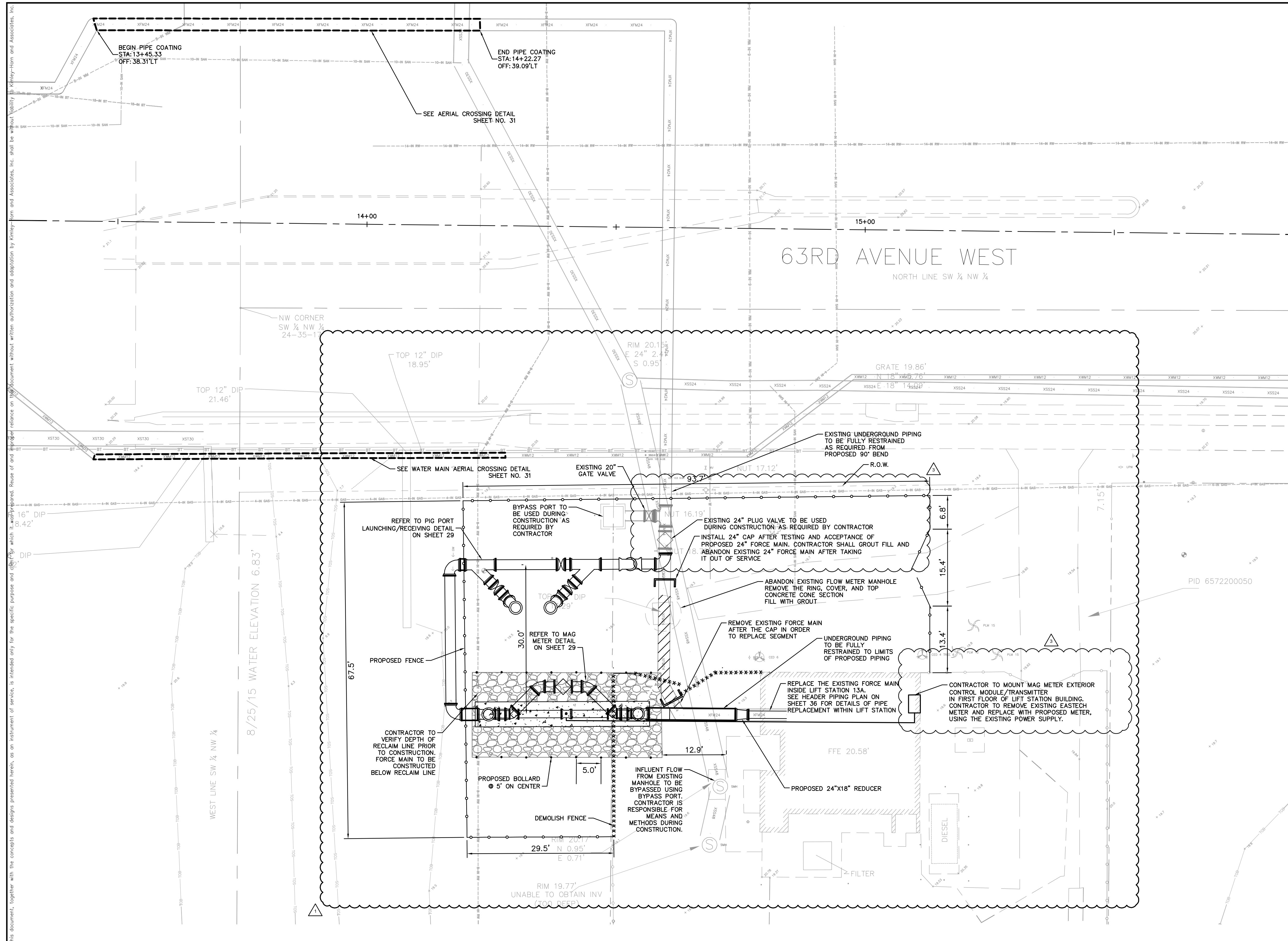
KHA PROJECT
 148400011
 DATE
 2/24/17
 SCALE AS SHOWN
 DESIGNED BY JWW
 DRAWN BY SNH
 CHECKED BY WEW

Manatee County
FORCE MAIN 13A
REPLACEMENT
 MANATEE COUNTY

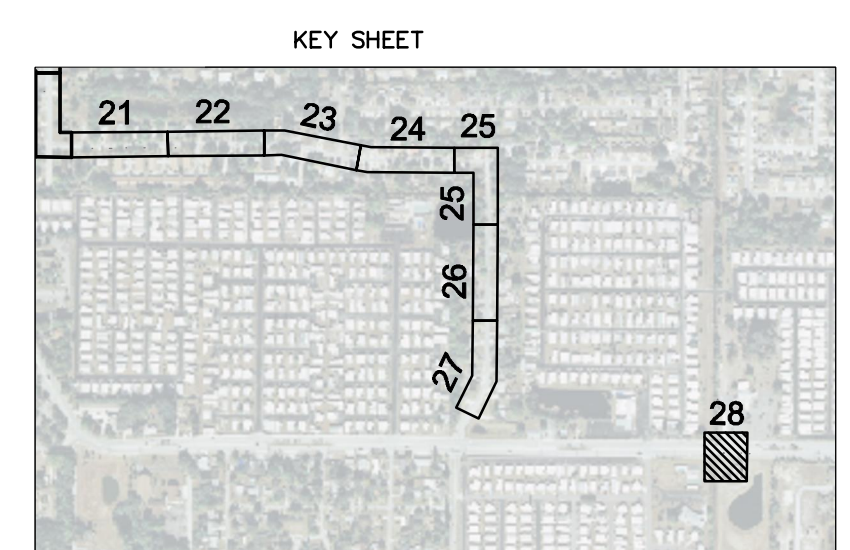
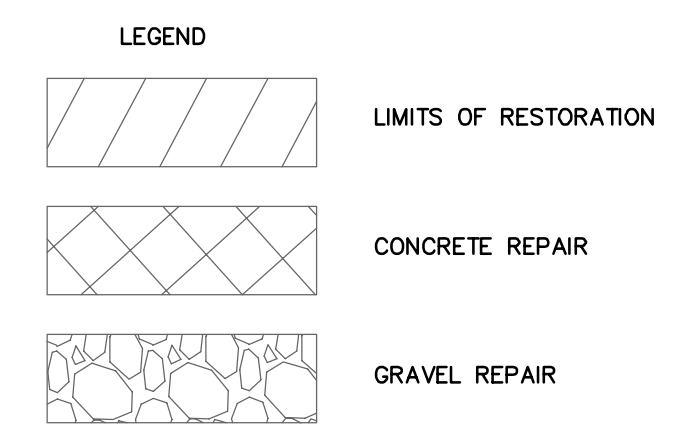
LICENSED PROFESSIONAL
 JORDAN W. WALKER, P.E.
 FL LICENSE NUMBER
 78652

PLAN AND PROFILE
(60TH AVE TERRACE W)
STA 90+00 TO STA 95+00

SHEET NUMBER
23



- NOTES:
- REFER TO SHEET 03 FOR ADDITIONAL SUBSURFACE UTILITY EXPLORATION INFORMATION.
 - CONTRACTOR TO TAKE PRECAUTION WHEN CONSTRUCTING FORCE MAIN AROUND INLET STRUCTURE TO PREVENT UNDERMINED.
 - CONTRACTOR TO FOLLOW RESTRAINED LENGTHS SET IN RESTRAIN LENGTH DETAILS ON SHEET 31.
 - CONSTRUCTION DEWATERING SHALL BE CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO CHAPTERS 62-621.300 AND 62-620 OF THE FLORIDA ADMINISTRATIVE CODE (FAC).



*NOTES:
 THE ELEVATIONS OF THE UTILITIES MARKED WITH AN ASTERISK (*) HAVE BEEN ASSUMED ON THE BASIS OF TYPICAL ANTICIPATED SOIL COVERAGE. CONTRACTOR SHALL NOT RELY ON THIS INFORMATION FOR CONSTRUCTION, BUT SHALL BE RESPONSIBLE FOR FIELD LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL UTILITIES CROSSING THE PROPOSED FORCE MAIN. CONTRACTOR SHALL INCLUDE IN THE UNIT COST OF THE SUBJECT FORCE MAIN CONSTRUCTION, THE COST OF UTILITY ADJUSTMENTS NECESSARY TO ATTAIN DESIGN MINIMUM SEPARATION FOR UTILITIES CONFLICTING WITH THE CONSTRUCTION OF THE PROPOSED FORCE MAIN. INTERRUPTIONS OF ANY EXISTING UTILITY SERVICES SHALL BE NOTICED TO EFFECTED CUSTOMERS A MINIMUM OF 48 HOURS IN ADVANCE AND SHALL NOT EXCEED 4 HOURS IN DURATION.
 WHERE CONCRETE REPAIRS ARE NECESSARY AND EXPANSION JOINTS ARE PRESENT, CONTRACTOR TO REMOVE AND REPLACE CONCRETE UP TO THE NEXT EXPANSION JOINT; OTHERWISE, REPLACE CONCRETE AS NECESSARY.

GROUNDWATER / DEWATERING NOTE:
 THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



No.	REVISIONS	DATE	BY
3	ADDENDUM #9	2/23/2017	JWW
2	ADDENDUM #6	2/15/2017	JWW
1	ADDENDUM #4	02/01/2017	JWW

Kimley»Horn
 © 2016 KIMLEY-HORN AND ASSOCIATES, INC.
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602
 PHONE: 813-620-1460
 WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT 148400011
DATE 2/23/17
SCALE AS SHOWN
DESIGNED BY JWW
DRAWN BY SNH
CHECKED BY WEW

Manatee County
FORCE MAIN 13A REPLACEMENT
 MANATEE COUNTY

LICENSED PROFESSIONAL
JORDAN W. WALKER, P.E.
FL LICENSE NUMBER 78652
FL DATE:

MASTER LIFT STATION PLAN 13A

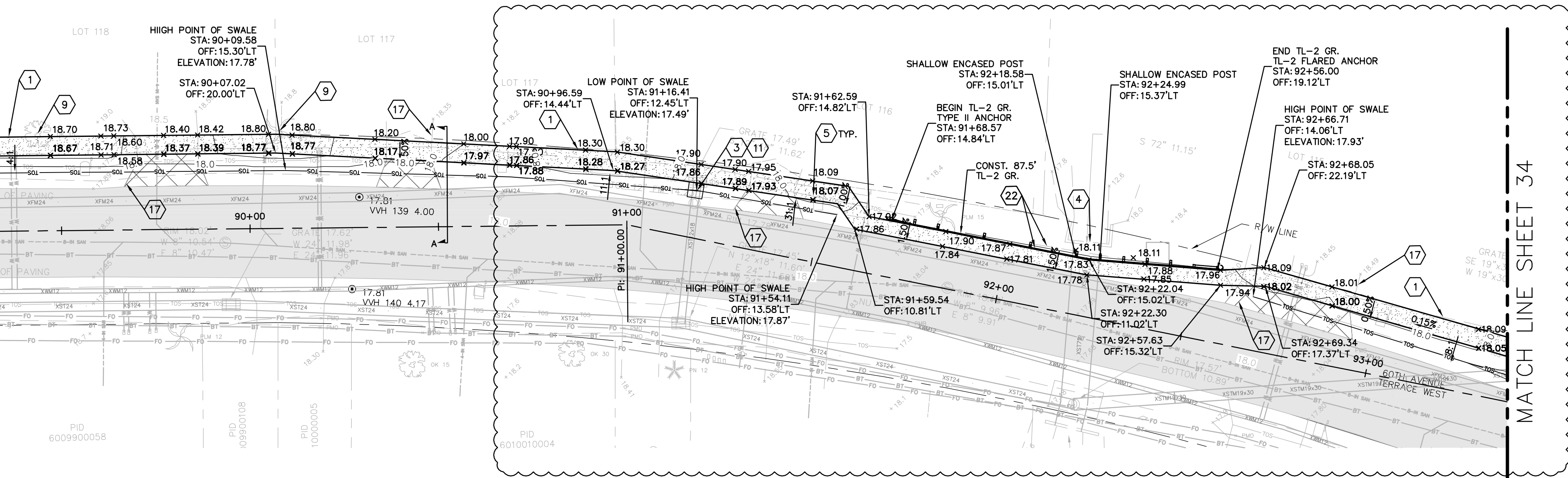
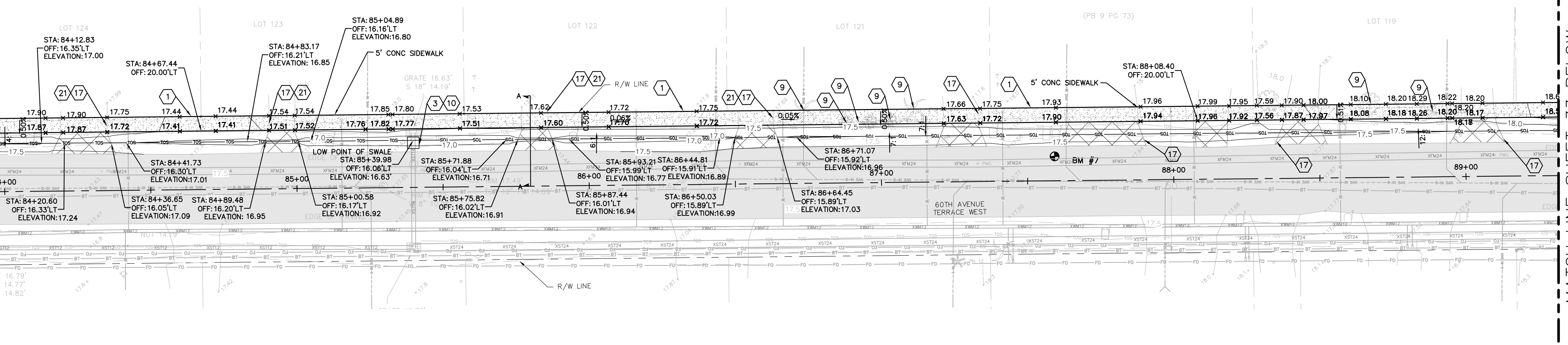
SHEET NUMBER
28

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any information contained in this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

MATCH LINE SHEET 32

MATCH LINE SHEET 33 ABOVE

MATCH LINE SHEET 33 BELOW



KEYED NOTES:

- 1 MATCH EXISTING. THE INTENT OF THE ELEVATIONS SHOWN ON THE OUTER EDGE OF THE SIDEWALK ALONG THE RIGHT-OF-WAY ARE TO MATCH THE EXISTING GRADE. THERE MAY BE DISCREPANCIES DUE TO INTERPOLATION BETWEEN SURVEY SPOT SHOTS.
- 2 EXIST. STORMWATER INLET TO BE PROTECTED IN PLACE
- 3 EXIST. STORMWATER INLET TO BE REMOVED AND REPLACED AS SHOWN
- 4 EXIST. STORMWATER CULVERT CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE
- 5 EXIST. MAILBOX TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION AND RELOCATED TO ORIGINAL LOCATION. CONTRACTOR TO COORDINATE WITH HOMEOWNER AND USPS.
- 6 EXISTING SIGN TO REMAIN
- 7 SAW CUT EXISTING PAVEMENT AS SHOWN
- 8 EXISTING FENCE AND GATE TO BE REMOVED AND RELOCATED AS REQUIRED. CONTRACTOR TO RELOCATE FENCE AND GATE TO RIGHT-OF-WAY LINE.
- 9 EXISTING TREE TO BE REMOVED.
- 10 PROPOSED STORM STRUCTURE TYPE D GRATE INLET PER FDOT INDEX 232 GRATE EL.: 16.63' S. INV. EL.: 13.99'
- 11 PROPOSED STORM STRUCTURE TYPE D GRATE INLET PER FDOT INDEX 232 GRATE EL.: 17.49' S. INV. EL.: 11.62'
- 12 PROPOSED STORM STRUCTURE TYPE D GRATE INLET PER FDOT INDEX 232 GRATE EL.: 17.39' S. INV. EL.: 12.94'
- 13 REPLACE EXISTING GRATE TOP WITH MANHOLE TOP
- 14 PROPOSED STORM STRUCTURE TYPE D GRATE INLET PER FDOT INDEX 232 GRATE EL.: 17.35' S. INV. EL.: 14.56'
- 15 EXISTING STORM PIPE TO REMAIN
- 16 PROPOSED STORM STRUCTURE TYPE D GRATE INLET PER FDOT INDEX 232 GRATE EL.: 17.04' N. INV. EL.: 13.70' S. INV. EL.: 13.70'

LEGEND CONT'D:

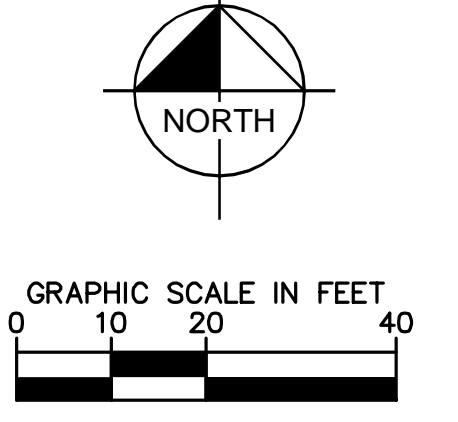
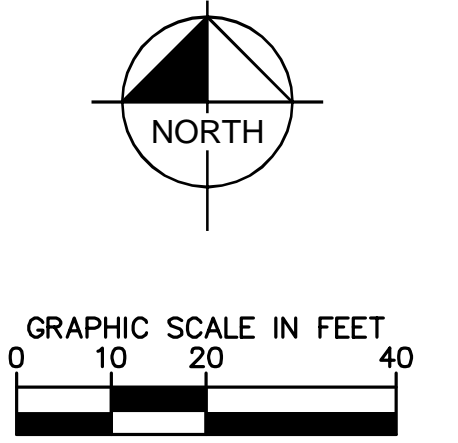
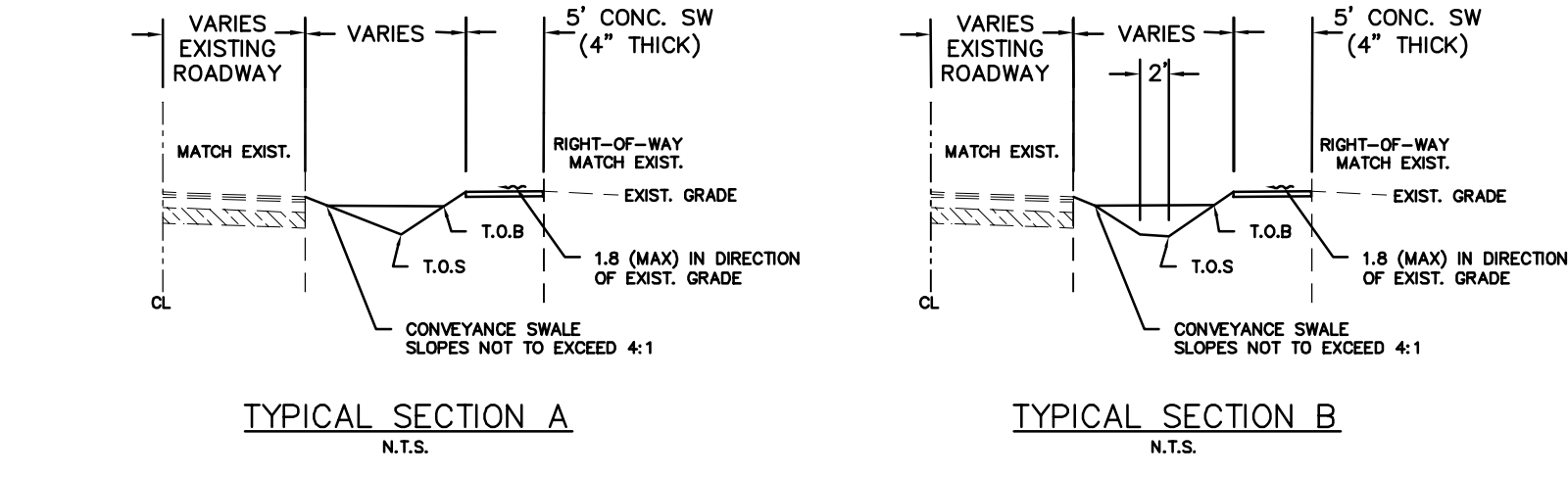
- 17 REPAIR AND REPLACE EXISTING DRIVEWAY IN ACCORDANCE WITH FDOT INDEX 515. SIDEWALK WITHIN LIMITS OF DRIVEWAY SHALL BE 6" THICK PER FDOT INDEX 310
- 18 TERMINATE SIDEWALK
- 19 PROPOSED HANDRAIL (PER FDOT INDEX 870)
- 20 APPLY THERMOPLASTIC CROSS WALK STRIPING PER FDOT INDEX NO. 17346
- 21 PROPOSED THICKENED EDGE, MAX 6" EXPOSED FACE (PER FDOT INDEX 310)
- 22 REMOVE AND REPLACE GUARDRAIL (PER FDOT INDEX 400)

LEGEND:

- PROP. CONCRETE SW (PER FDOT INDEX 310. SEE PLAN FOR WIDTH)
- DETECTABLE WARNING STRIPS (PER FDOT INDEX 304)
- CONCRETE DRIVEWAY REPAIR
- GRAVEL DRIVEWAY REPAIR

LEGEND CONT'D:

- EXISTING R/W
- PROPOSED HANDRAIL (PER FDOT INDEX 870)
- PROPOSED GUARDRAIL (PER FDOT INDEX 400)
- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED TOP OF BANK
- PROPOSED TOE OF SLOPE
- EXISTING TOP OF BANK
- EXISTING TOE OF SLOPE
- PROPOSED SPOT GRADE
- EXISTING SPOT GRADE



GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER. PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



No.	REVISIONS	DATE	BY
9	ADDENDUM #9	2/23/2017	JWW
6	ADDENDUM #6	2/15/2017	JWW
4	ADDENDUM #4	1/24/2017	JWW

Kimley»Horn
© 2016 KIMLEY-HORN AND ASSOCIATES, INC.
655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602
PHONE: 813-620-1460
WWW.KIMLEY-HORN.COM CA 0000696

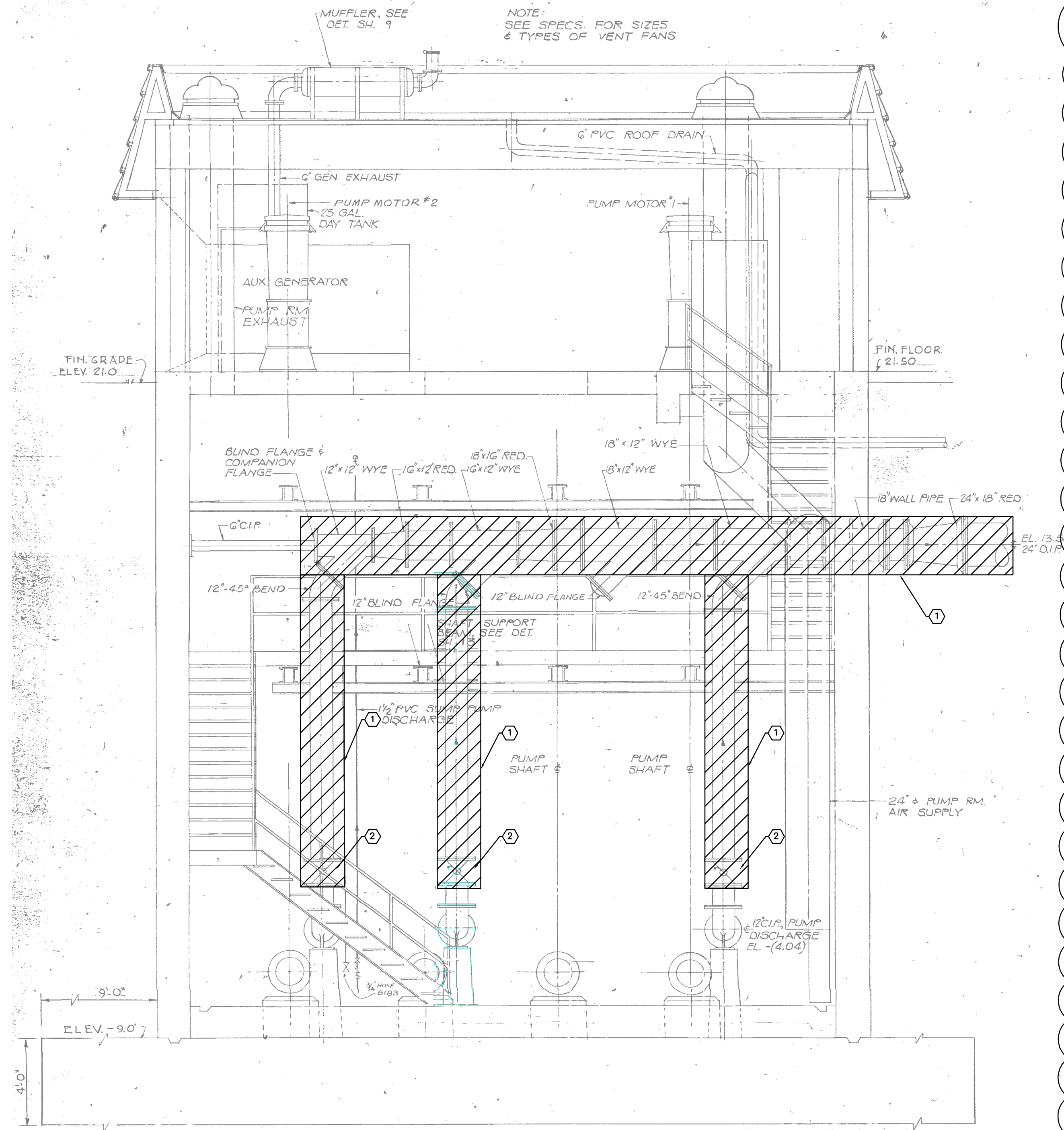
KHA PROJECT	148400011
DATE	2/24/17
SCALE	AS SHOWN
DESIGNED BY	JWW
DRAWN BY	SNH
CHECKED BY	WEW

Manatee County
FORCE MAIN 13A REPLACEMENT
MANATEE COUNTY

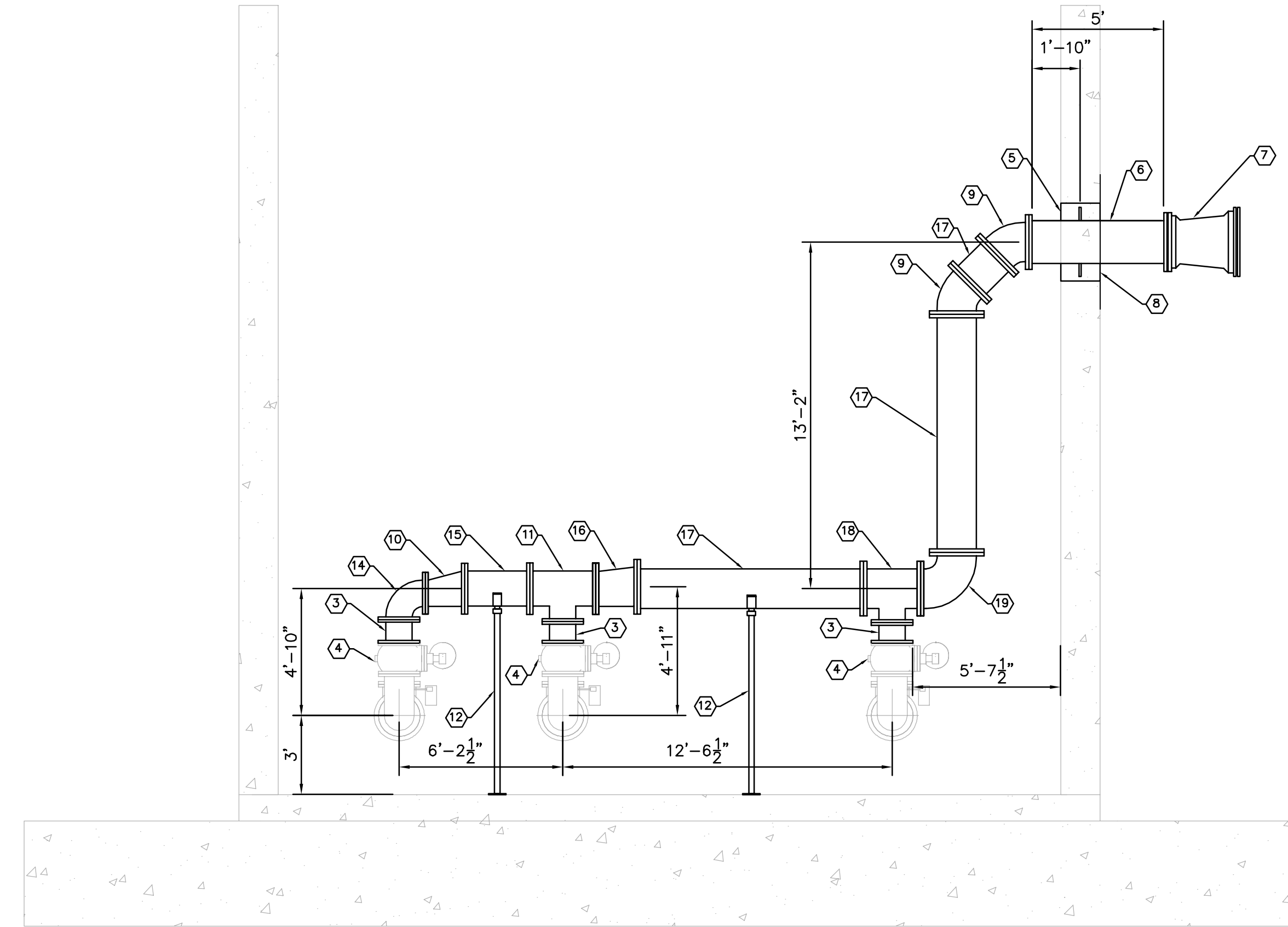
LICENSED PROFESSIONAL
JORDAN W. WALKER, P.E.
FL LICENSE NUMBER 78652
DATE:

SHEET NUMBER
SIDEWALK PLAN (60TH AVE W)
34

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



EXISTING LS 13A WET WELL SECTION 1
NTS 000



PROPOSED VALVE RELOCATION 2
1/4" = 1' 000

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCIES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING EQUIPMENT, UTILITIES, STRUCTURES, AND PERSONNEL FROM DAMAGE OR INJURY DURING CONSTRUCTION.
3. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE SCHEDULE AS PART OF HIS SUBMITTALS FOR REVIEW AND APPROVAL FROM OWNER/ENGINEER TO MINIMIZE FLOW INTERRUPTIONS.
4. ALL EXISTING MECHANICAL PIPING AND EQUIPMENT SHALL BE REMOVED AND SALVAGED PER SPECIFICATIONS.
5. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF DEMOLISHED MATERIAL. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

KEY NOTES

- 1 EXISTING PIPING TO BE REMOVED AND REPLACED
- 2 EXISTING VALVE TO BE REMOVED AND REPLACED
- 3 PROPOSED 12" D.I. SPOOL PIECE, FLG X FLG
- 4 EXISTING 12" D.I. PLUG VALVE
CONTRACTOR SHALL CHIP OUT CONCRETE FROM AROUND EXISTING FM AT BUILDING IN ORDER TO REMOVE AND REINSTALL PIPING. REMOVE PIPING AND INSTALL NEW FLANGE PIPING INTO THE BUILDING, SECURE TO EXISTING HEADER PIPING IN DRYWELL. MUD UP AROUND NEW FM PIPING WITH NON-SHRINK GROUT INSIDE AND OUT. THEN APPLY BITUMINOUS MASTIC OVER GROUT ON THE OUTSIDE OF THE BUILDING.
- 6 PROPOSED 18" D.I. WALL PIPE, FLG X PE
- 7 PROPOSED 24" X 18" D.I. REDUCER
PREPARE AND PAINT SURROUNDING CONCRETE WITH COAL TAR-EPXOXY (SYSTEM NO. 46-31) PER THE SPECIFICATIONS
- 9 PROPOSED 18" D.I. 45° FITTING
- 10 PROPOSED 16" X 12" D.I. REDUCER
- 11 PROPOSED 16" X 16" X 12" D.I. TEE
- 12 PIPE COLUMN SUPPORT PER DETAIL ON SHEET 32
- 13 NOT USED
- 14 PROPOSED 12" D.I. 90° BEND
- 15 PROPOSED 16" D.I. SPOOL PIECE, FLG X FLG
- 16 PROPOSED 18" X 16" D.I. REDUCER
- 17 PROPOSED 18" D.I. SPOOL PIECE, FLG X FLG
- 18 PROPOSED 18" X 18" X 12" D.I. TEE
- 19 PROPOSED 18" D.I. 90° BEND

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



No.	REVISIONS	DATE	BY
3	ADDENDUM #9	2/23/2017	JWW
2	ADDENDUM #6	2/15/2017	JWW
1	ADDENDUM #4	02/01/2017	JWW

Kimley»Horn
© 2016 KIMLEY-HORN AND ASSOCIATES, INC.
655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602
PHONE: 813-620-1460
WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT	148400011
DATE	2/24/17
SCALE	AS SHOWN
DESIGNED BY	JWW
DRAWN BY	SNH
CHECKED BY	WEW

Manatee County
FORCE MAIN 13A REPLACEMENT
MANATEE COUNTY

LICENSED PROFESSIONAL	JORDAN W. WALKER, P.E.
FL LICENSE NUMBER	78652

HEADER PIPING PLAN

SHEET NUMBER	36
--------------	----