The Enclosed Document Is Provided For Your Convenience.

Please Email ALL Questions:

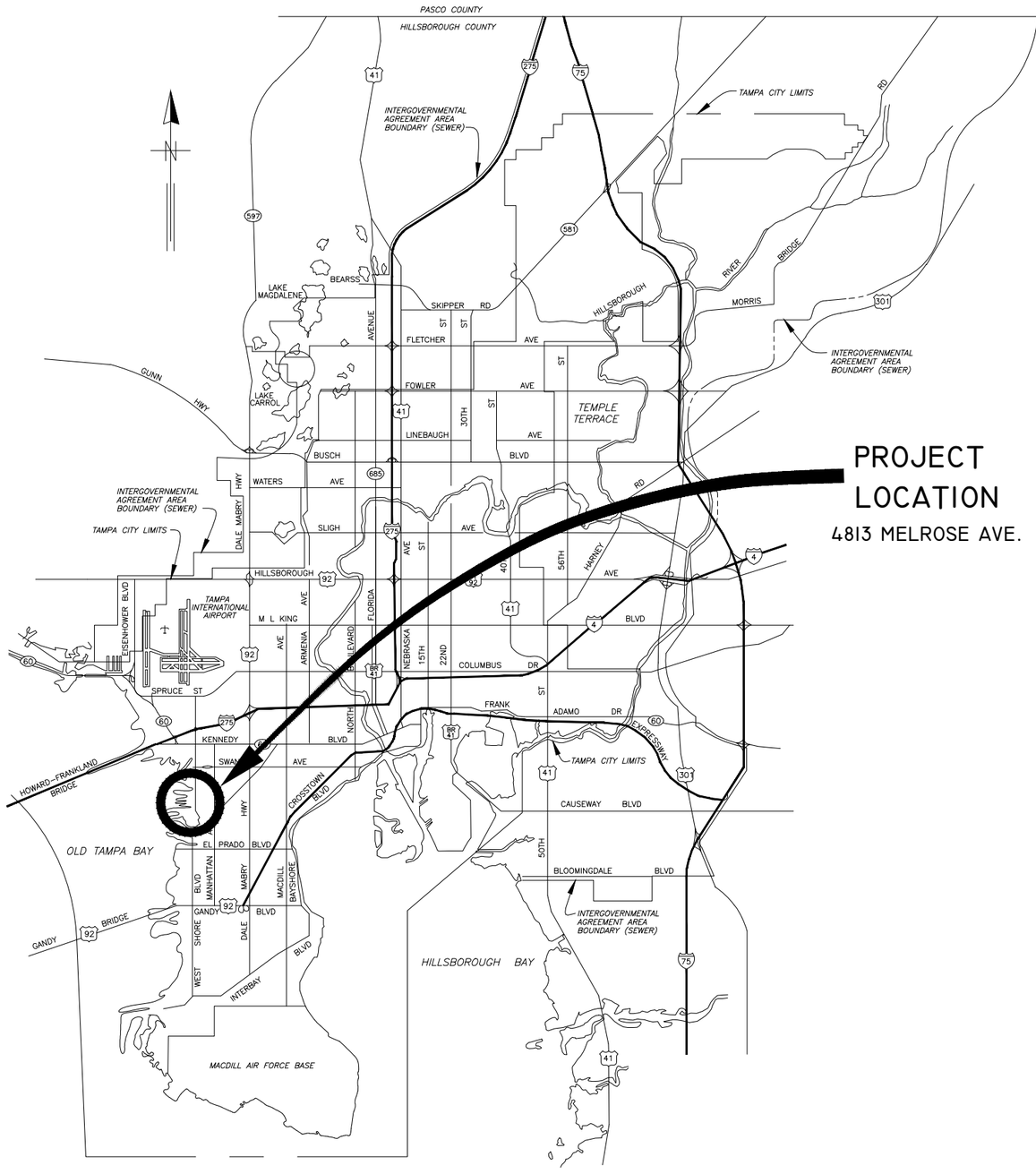
MailTo:ContractAdministration@TampaGov.net

Please Let Us Know If You Plan To Bid

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456

B086-050

LOCATION MAP



CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

WASTEWATER DEPARTMENT

PLANS FOR

MELROSE AVE. PUMPING STATION REPLACEMENT

CONTRACT No.
14-C-00042

K:\WW_PROJECTS\2014\2014_WO_5968MELROSEPSREPLACEMENT\DWG\5968-SHEET-01.DWG

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: CB
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

COVER SHEET

W.O.1000061
SHEET
1

B086-051

LEGEND

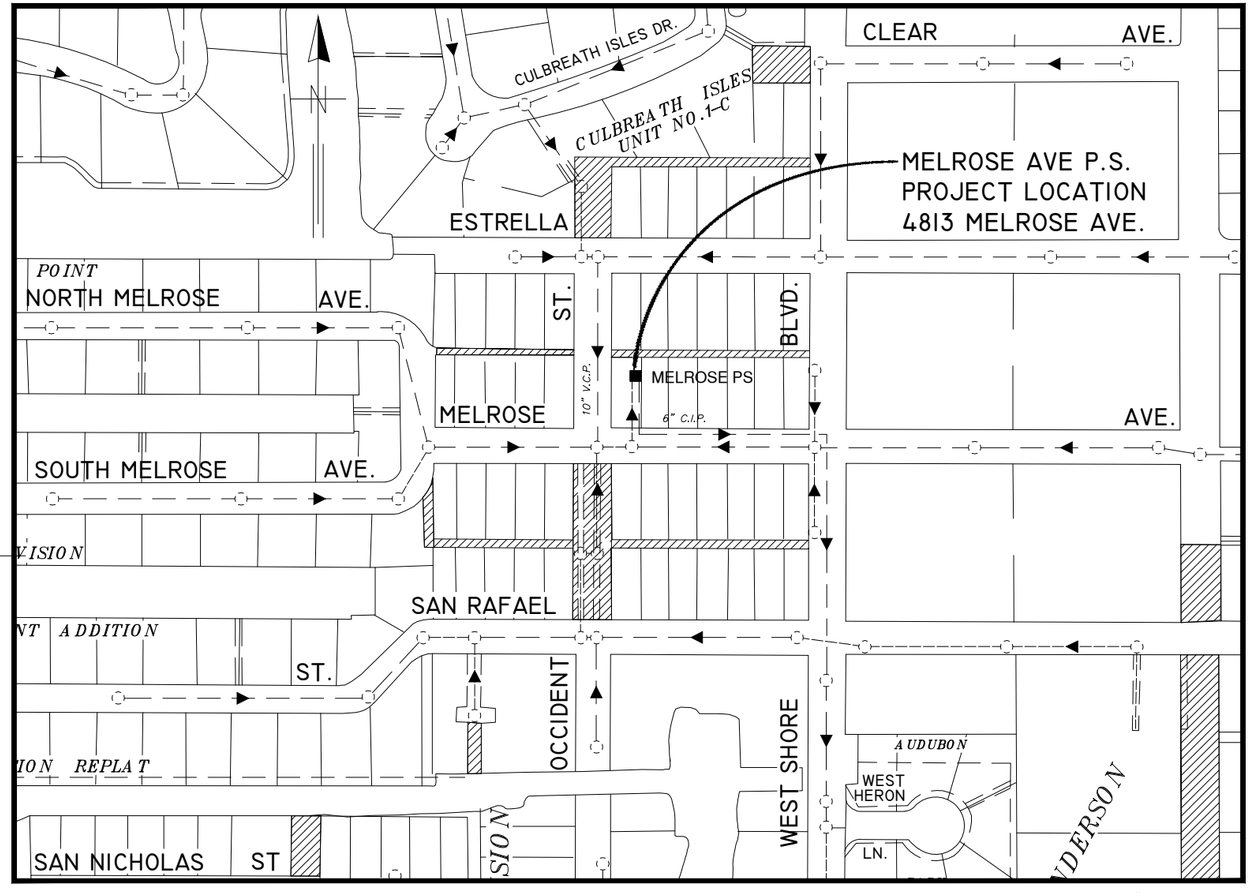
EX SEWERS	UP to 36" & SMALLER	36" & LARGER
EX FORCE MAIN		
EX SAN SEWER & MANHOLES		
EX STORM SEWER & MANHOLES		
PROP SEWERS		
PROP FORCE MAIN		
PROP SANITARY SEWER & MANHOLES		
PROP STORM SEWER & MANHOLES		

OTHER FEATURES

- RIGHT of WAY LINE (R/W)
- EDGE of PAVEMENT
- WATER LINE
- GAS LINE
- ELECTRICAL CABLE or DUCT
- TELEPHONE CABLE or DUCT
- TV CABLE
- VALVE, AIR RELEASE VALVE
- HYDRANT
- CATCH BASIN, GRATE
- POWER POLE
- TELEPHONE POLE
- GUY POLE
- GUY WIRE
- VALVE VAULT (V)
- WATER METER (M)
- ELECTRICAL MANHOLE or VAULT (E)
- TELEPHONE MANHOLE or VAULT (T)
- TRAFFIC BOX or VAULT (TR)
- BUILDING LIMIT (1236)
- PROPERTY OWNERSHIP (Z)
- FENCE
- CONIFER (6")
- PALM (8")
- OAK (10")
- OTHER (12")
- SHRUB
- HEDGE
- RAILROAD TRACKS
- IRON PIPE
- CONTROL POINT
- CONCRETE MONUMENT
- OPEN DITCHES
- EXISTING WYE
- PROPOSED WYE
- CLEAN OUT

ABBREVIATIONS

AIR RELEASE VALVE	ARV	MAINTENANCE OF TRAFFIC	MOT
APPROXIMATE LOCATION	AL	MANHOLE	MH or MH
BENCH MARK	BM	PLUG VALVE	PV
BURIED TELEPHONE	BT	POINT of INTERSECTION	PI
CONCRETE PIPE	CP	POLYVINYL CHLORIDE PIPE	PVC
DIAMETER RATIO	DR	REINFORCED CONCRETE PIPE	RCP
DUCTILE IRON PIPE	DIP	RESTRAINED MECHANICAL JOINT	RMJ
EDGE OF PAVEMENT	EOP	RIGHT of WAY	R/W
FIBER OPTIC CABLE	FOC	TOP of PIPE	TOP
FLORIDA DEPT. OF TRANSPORTATION	FDOT	VERIFIED VERT. AND HORZ. LOCATION	Vvh
FORCE MAIN	FM	VITRIFIED CLAY PIPE	VCP
HIGH DENSITY POLYETHYLENE PIPE	HDPE	WASTEWATER	WW
EL INVERT ELEVATION	IE or INV		



NOTE: ALL WASTEWATER LINES ARE 8" OR LESS, UNLESS OTHERWISE NOTED.

LOCATION MAP
NOT TO SCALE

INDEX

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: CB
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CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
LEGEND, INDEX & LOCATION MAP

W.O.1000061
SHEET 2

Layout– Sheet–2; Last Saved: May 28, 2015 – 12:44pm

B086-052

DEMOLITION NOTES

D-1. SALVAGEABLE MATERIAL, AS DETERMINED BY DEPARTMENT PERSONNEL, SHALL BE DELIVERED TO THE PARTS WAREHOUSE LOCATED ON THE TREATMENT PLANT SITE. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

D-2. THE CONSTRUCTION SITE SHALL BE MAINTAINED IN AS NEAT AND ORDERLY CONDITION AS POSSIBLE DURING CONSTRUCTION OPERATIONS. SITE SHALL BE SECURED WITH TEMPORARY FENCING AND STRUCTURES DURING HOURS WHEN CONTRACTOR IS NOT PRESENT TO ENSURE SAFETY OF CITY EMPLOYEES AND THE PUBLIC.

D-3. CONTRACTOR SHALL RESTORE ALL LANDSCAPING, SODDING, SPRINKLER SYSTEM PIPING AND PAVEMENT THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER. CONTRACTOR SHALL SOD ALL UNPAVED AREAS.

D-4. THE CITY DOES NOT BELIEVE ASBESTOS IS PRESENT IN THE BUILDING. PER EPC REQUIREMENTS, CONTRACTOR WILL BE REQUIRED TO PROCURE A THIRD PARTY ASBESTOS SURVEY FROM A LICENSED ASBESTOS CONSULTANT. DEMOLITION OF PUMP STATION BUILDING CANNOT BEGIN UNTIL (3) WEEKS AFTER THE ASBESTOS SURVEY IS SUBMITTED TO THE ENGINEER. THE CITY WILL FURNISH EPC WITH THE REQUIRED NOTIFICATION. IF THE SURVEY DISCOVERS THE PRESENCE OF ASBESTOS, THE CITY WILL UTILIZE CONTINGENCY FUNDS FOR THE ASBESTOS REMOVAL IN ACCORDANCE WITH EPC STANDARDS.

GENERAL NOTES

G-1. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE CONTRACT ADMINISTRATION DEPARTMENT, WASTEWATER PERSONNEL AND PUMPING STATION OPERATIONS.

G-2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS FOR THE PUMPING STATION WORK.

G-3. THE CITY WILL OBTAIN ALL NECESSARY BUILDING PERMITS AND FDEP WASTEWATER PERMITS.

G-4. CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.

G-5. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER.

G-6. TWO NEW PUMPS SHALL BE SUPPLIED FOR THIS PROJECT. PROPOSED PUMPS ARE FLYGT, MODEL NP-3102.185, 4-INCH, 5 HP, WITH 172mm IMPELLERS. PUMPS SHALL BE SUPPLIED WITH FLYGT MIX-FLUSH VALVES. ALL PROPOSED PUMP BASES SHALL BE 4-INCH DIAMETER DISCHARGE ELBOWS. PUMPS SHALL BE RATED FOR 280 GPM AT 32 FT TDH. THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITTALS WILL BE CONSIDERED.

G-7. CONTRACTOR SHALL VERIFY QUANTITIES OF ALL NECESSARY PIPES, REDUCERS, FITTINGS, SUPPORTS, AND ANY MISCELLANEOUS BRACKETS.

G-8. DIMENSIONS SHOWN ARE NOT NECESSARILY ACCURATE TO THE DEGREE REQUIRED FOR FABRICATION. EXISTING DIMENSIONS AND VIEWS ARE SHOWN BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT DIMENSIONS AND REFLECT THEM ON DETAILED SHOP DRAWINGS FOR APPROVAL BEFORE ANY FABRICATION.

G-9. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (CLEARLY LEGIBLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.

G-10. PUMP DISCHARGE PIPING IN WET WELL SHALL BE 6-INCH DIAMETER HDPE, SDR-11, GREEN STRIPE, DIPS-OD. HDPE JOINTS SHALL BE FLANGED WITH 316 SS BACK UP RINGS.

G-11. PLUG VALVES SHALL BE DEZURIK, PEF 100% PORT, ECCENTRIC PLUG VALVES OR APPROVED EQUAL. ALL ABOVE GROUND PLUG VALVES SHALL BE PROVIDED WITH 2" NUTS AND NO HANDWHEELS.

G-12. CHECK VALVES SHALL BE APCO RUBBER FLAPPER SWING CHECK VALVES, SERIES 100. THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITTALS WILL BE CONSIDERED.

G-13. ALL HARDWARE, UNLESS OTHERWISE NOTED, SHALL BE TYPE 316 STAINLESS STEEL.

G-14. PIPE SUPPORTS SHALL BE CONSTRUCTED AS SHOWN IN THE PIPE SUPPORT DETAIL.

G-15. ALL CEMENTITIOUS CONCRETE AND GROUT, UNLESS OTHERWISE NOTED, SHALL BE CLASS "B", 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. ALL REINFORCING STEEL SHALL BE GRADE 60.

G-16. OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.

G-17. ALL METAL PIPE, FITTINGS, VALVES, ETC. SHALL RECEIVE:
1) SHOP COAT - ONE COAT, 4-6 MILS (DRY) TNEMEC N140-1211 EPOXY PRIMER.
2) FIELD COAT - ONE COAT, 5-7 MILS (DRY) TNEMEC SERIES 446 PERMA-SHIELD MCU
3) FIELD COAT
A) ABOVE GRADE : ONE COAT, 4-6 MILS (DRY) TNEMEC 1074U ENDURASHIELD (WITH FACTORY ADDED UV BLOCKER)
B) BELOW GRADE : ONE COAT, 5-7 MILS (DRY) TNEMEC SERIES 446 PERMA-SHIELD MCU

G-18. BACKFILL (NO CLAY OR CLAYEY MATERIAL) SHALL BE COMPACTED IN 6-INCH LAYERS (MAX.) TO 98% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR IN CONFORMANCE WITH AASHTO T-180, METHOD A.

G-19. ALL STAINLESS STEEL PARTS TO BE WELDED SHALL BE THE LOW-CARBON VERSION OF THE GRADE OF STAINLESS STEEL THAT IS CALLED FOR, SUCH AS: T-316L OR T-304L.

G-20. CONTRACTOR SHALL POUR A NEW CONCRETE FILLET, AT THE BOTTOM OF THE WET-WELL, AS SHOWN IN THE PLANS WITH CLASS "D" (2,000 PSI @ 28-DAYS) CONCRETE.

G-21. ALL CONCRETE PAVEMENT, UNLESS OTHERWISE NOTED, SHALL BE MIN 6" THICK CONCRETE WITH 4X4 W6XW6 WWF STEEL REINFORCEMENT. CONCRETE SHALL BE CONSTRUCTED ON COMPACTED SUBBASE (MINIMUM 98% MODIFIED PROCTOR) WITH 1.5" DEEP CONTROL JOINTS SAWCUT @ 15' MAX, CUT WITHIN 12 HRS OF CONCRETE PLACEMENT.

G-22. CONTRACTOR TO SUBMIT METHOD FOR 100% WATERTIGHT SEALING AT PIPE PENETRATIONS THROUGH STRUCTURES. PROPOSED LINK SEAL OR APPROVED EQUAL.

G-23. CONTRACTOR SHALL PROVIDE A REDUCED PRESSURE BACKFLOW-PREVENTION DEVICE IN WATER SERVICE LINE, AS SHOWN IN DETAILS, AT A PLACE TO BE SPECIFIED DURING CONSTRUCTION. BACKFLOW PREVENTION DEVICE SHALL BE 1" WILKINS, MODEL #975 XL, OR EQUAL.

G-24. ALUMINUM ACCESS COVERS SHALL BE DESIGNED FOR A PEDESTRIAN LIVE LOADING OF 300 PSF WITH 316 STAINLESS STEEL HARDWARE, HINGES AND AUTOMATIC HOLD-OPEN ARM AS MANUFACTURED BY US FOUNDRY AND MANUFACTURING CORPORATION OR APPROVED EQUAL. THE PUMP ACCESS COVER SHALL BE A DOUBLE DOOR ARRANGEMENT WITH AN ANGLE FRAME FOR AN OVERALL OPENING OF 5 FT BY 3 FT. THE ACCESS DOOR SHALL ALSO BE EQUIPPED WITH A FLUSH LIFTING HANDLE, TAMPERPROOF FASTENERS AND EXPOSED PADLOCK STAPLES.

G-25. THE ACCESS COVER SHALL CLOSE FLUSH WITH THE FRAME. ALL ALUMINUM SURFACES THAT CONTACT CONCRETE SHALL BE COATED WITH TWO COATS OF COAL TAR EPOXY OR BITUMINOUS COATING OR EQUAL. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE INSTALLATION AND CONFIGURATION OF THE ACCESS COVERS.

G-26. PROPOSED PRECAST WET WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-76, CLASS II WALL B. MINIMUM STEEL REINFORCEMENT SHALL BE INNER CAGE .76 IN^2/FT AND OUTER CAGE .46 IN^2/FT. (SEE SPECIFICATIONS)

G-27. ALL DIP PIPE AND FITTING SHALL BE CLASS 53 WITH PROTECTO 401 INTERIOR COATING.

G-28. PVC GRAVITY PIPE AND FITTINGS AND PVC FM PIPE AND FITTINGS SHALL BE C-900 (DR-18).

G-29. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL TREES WITHIN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE. PRUNING OF BRANCHES IS NOT AUTHORIZED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PLANNING AND DEVELOPMENT DEPARTMENT, NATURAL RESOURCE SECTION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST. EXCAVATION WITHIN THE PROTECTIVE RADIUS OF TREES WILL REQUIRE ROOT PRUNING WITH THE APPROPRIATE EQUIPMENT TO ASSURE ROOTS ARE SEVERED CLEAN AT THE APPROVED RADIUS. FOR QUESTIONS REGARDING THESE REQUIREMENTS, PLEASE CONTACT THE PLANNING AND DEVELOPMENT DEPARTMENT, NATURAL RESOURCE SECTION AT 274-3100 OR 1400 N. BOULEVARD, TAMPA, FLORIDA 33607.

G-30. CONTRACTOR SHALL RESTORE ALL LANDSCAPING, SODDING, SPRINKLER SYSTEM PIPING, PAVEMENT AND FENCING THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER.

G-31. THE PROPOSED CURED IN PLACE PIPE LINER SHALL BE FOR THE 10" DIA. INFLUENT PIPE WITH A 7.5 MM THICKNESS AND INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

BYPASS PUMPING NOTES

B-1. SEWER SERVICE TO CUSTOMERS SHALL NOT BE DISRUPTED DURING CONSTRUCTION. CONTRACTOR SHALL SUBMIT DETAILED PROPOSAL FOR BYPASS PUMPING STRATEGY.

B-2. BYPASS PUMPS SHALL BE CAPABLE OF 280 GPM. THE BYPASS PUMPS SHALL BE OF THE SELF PRIMING QUIET FLOW TYPE PUMPS. THE PUMPS SHALL SUCTION FROM A MIN. 8" PIPE CORED INTO THE SIDE OF THE MANHOLE IN MELROSE AVE. (SEE DETAIL, SHEET 11) AND DISCHARGE INTO THE EX. 6" FM.

B-3. BYPASS PUMPS NOISE SHALL STRICTLY COMPLY TO ALL LOCAL REGULATIONS AND ORDINANCES COVERING NOISE CONTROL THIS MAY REQUIRE CONSTRUCTING SOUND ATTENUATING ENCLOSURE AROUND PUMPS AND UTILIZATION OF ELECTRIC PUMP MOTORS MAY BE NECESSARY TO MEET THESE REQUIREMENTS.

B-4. THE CONTRACTOR WILL HAVE A MAXIMUM OF 2 HOURS SHUT DOWN TO INSTALL THE BYPASS TEE AND VALVE ASSEMBLY. CONTRACTOR SHALL PROVIDE THE CITY A MINIMUM OF 1 WEEK NOTICE OF THIS WORK. IF THE EXISTING VALVES WORK, AND WE HOT-TAP EX. FORCEMAIN, THE PUMPING STATION SHUT DOWN IS NOT NECESSARY.

B-5. IN ORDER TO MINIMIZE BYPASS PUMPING DURATION, CONTRACTOR SHALL HAVE ALL PROPOSED MATERIALS AND EQUIPMENT ON-SITE BEFORE PLACING PUMPING STATION ON BYPASS.

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: CB
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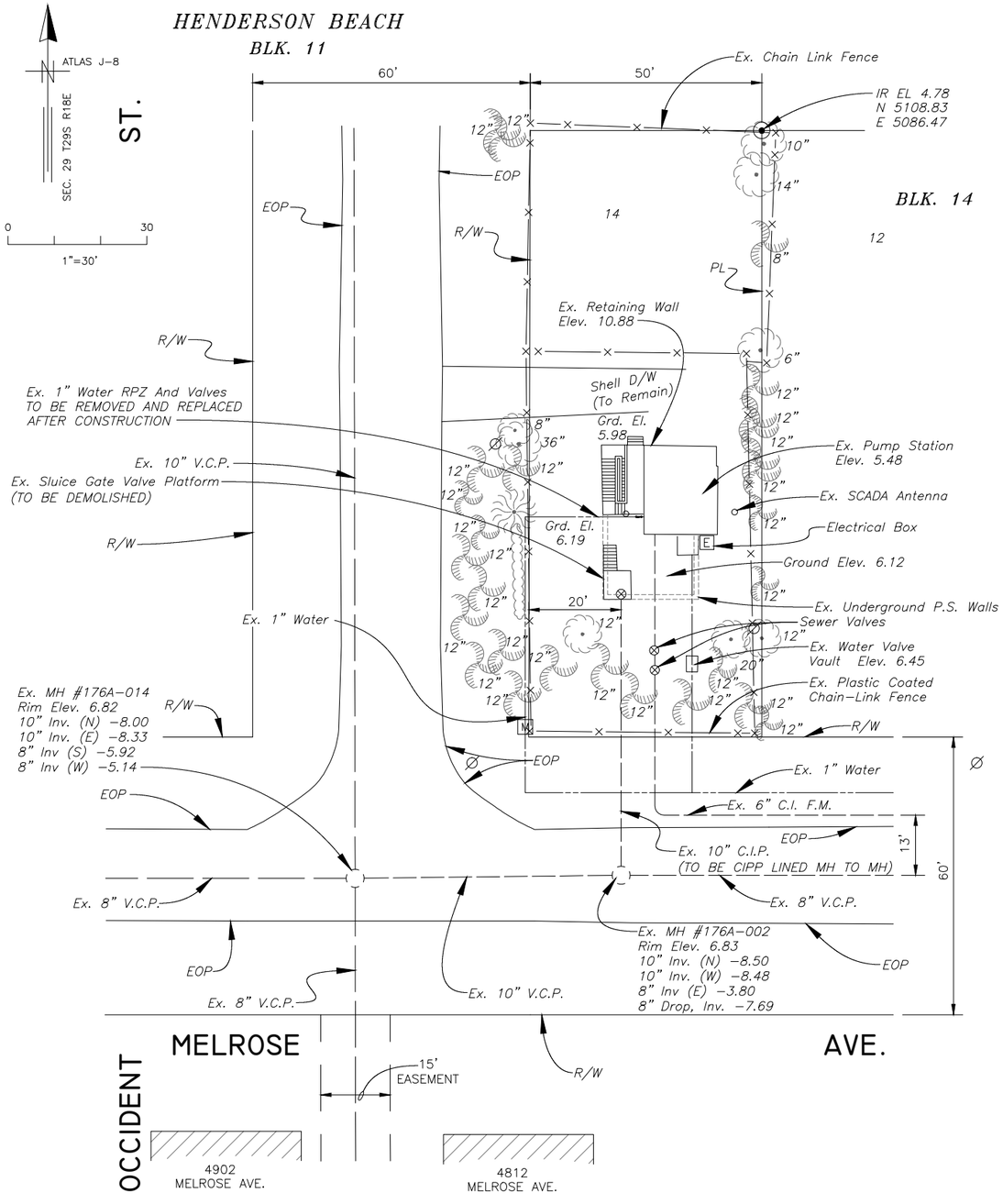
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

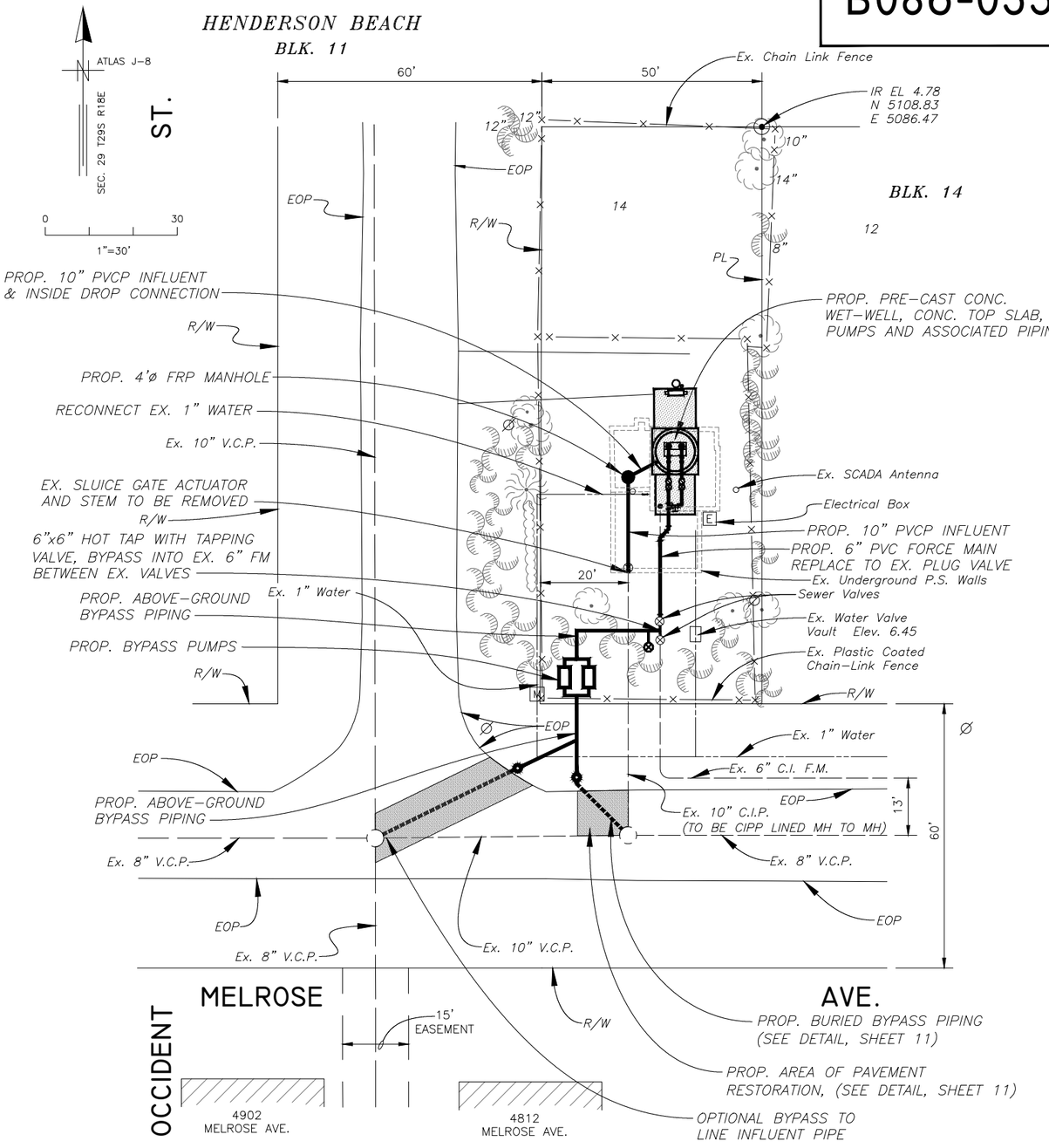
MELROSE AVENUE PUMPING STATION REPLACEMENT
GENERAL NOTES, DEMOLITION NOTES
AND CONSTRUCTION SEQUENCE

W.O.1000061
SHEET
3

B086-053



EXISTING SITE PLAN
SCALE: I" = 30'



PROPOSED SITE PLAN
SCALE: I" = 30'

No.	DATE	REVISIONS
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JACINTO CARLOS FERRAS, P.E. #49454
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CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVE. PUMPING STATION
REPLACEMENT
EXISTING AND PROPOSED SITE PLANS

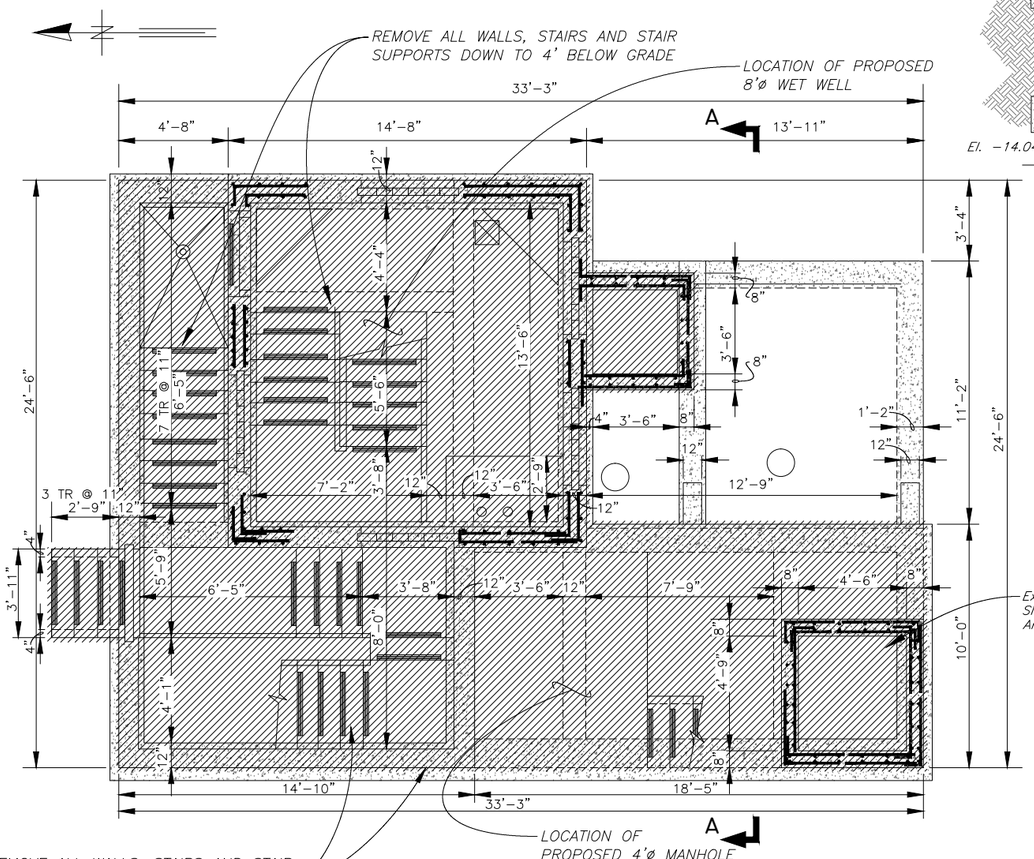
W.O.1000061
SHEET
4

User: ssff Drawing Name: K:\WW_Projects\2014\2014_WO_5968 MELROSE PS REPLACEMENT\Dwg\5968-Sheet-04.dwg

B086-054

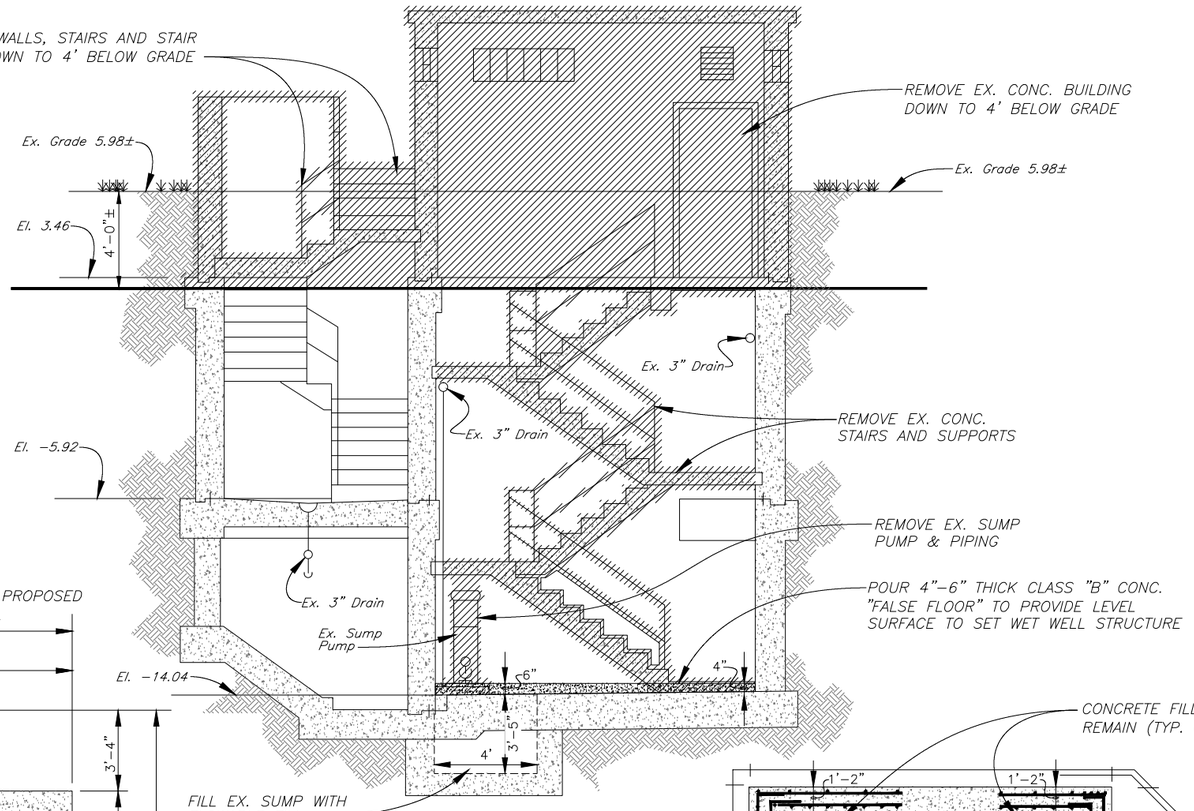
NOTES:

1. DEMOLISH ALL ITEMS DOWN TO 4–FT± BELOW EXISTING GROUND ELEVATION.
2. FILL VOIDS INSIDE EX. PUMPING STATION WITH FDOT EXCAVATABLE FLOWABLE FILL.
3. BACKFILL TOP 4'± WITH CLEAN, COMPACTED EARTH TO MATCH EXISTING GROUND ELEVATIONS.



ENTRANCE LEVEL FLOOR PLAN

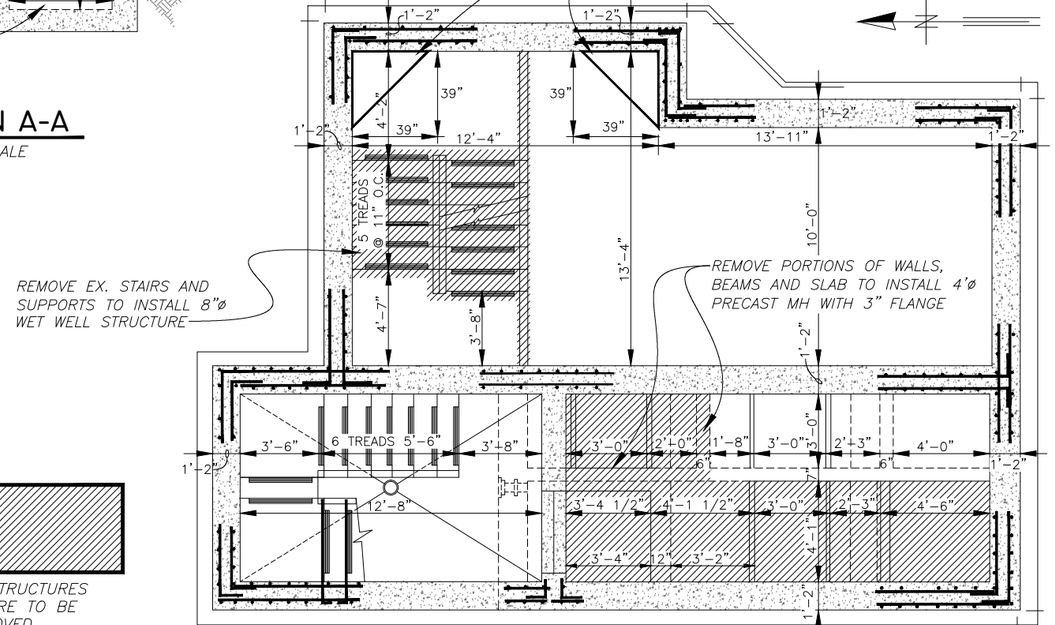
NOT TO SCALE



SECTION A-A

NOT TO SCALE

ALL EQUIPMENT AND STRUCTURES SHOWN AS HATCHED ARE TO BE DEMOLISHED AND REMOVED.



INTERMEDIATE LEVEL FLOOR PLAN

NOT TO SCALE

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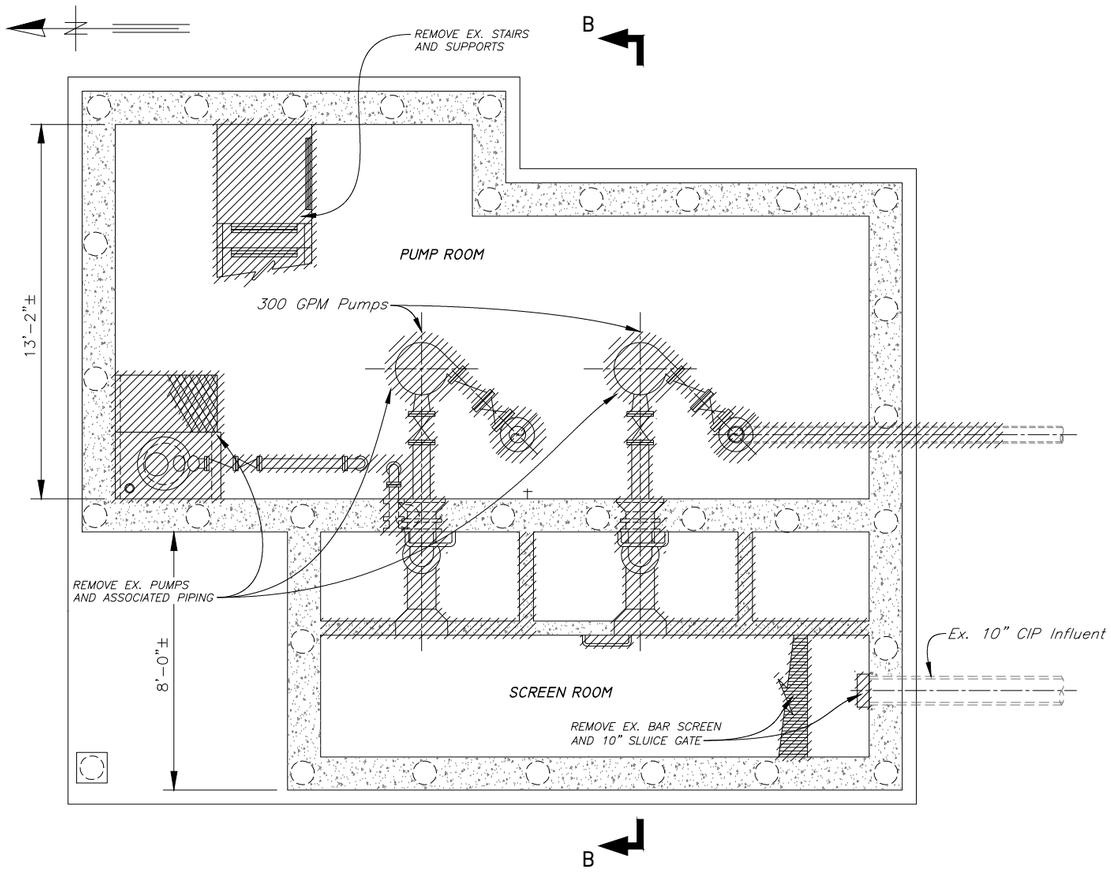
MELROSE AVENUE PUMPING STATION REPLACEMENT
DEMOLITION PLANS - PLAN & SECTION VIEWS

W.O.1000061
SHEET 5

B086-055

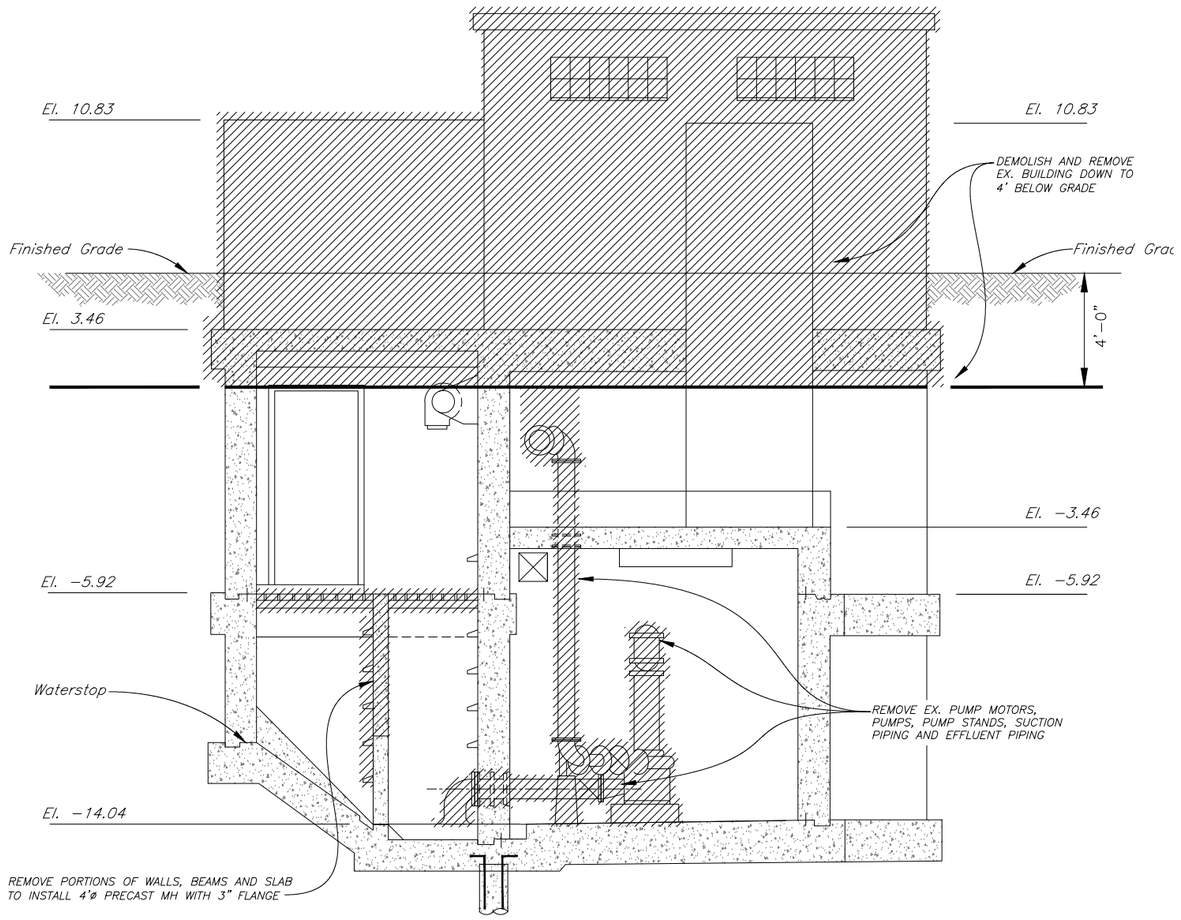
NOTES:

1. DEMOLISH ALL ITEMS DOWN TO 4–FT± BELOW EXISTING GROUND ELEVATION.
2. FILL VOIDS INSIDE EX. PUMPING STATION WITH FDOT EXCAVATABLE FLOWABLE FILL.
3. BACKFILL TOP 4'± WITH CLEAN, COMPACTED EARTH TO MATCH EXISTING GROUND ELEVATIONS.



FOUNDATION PLAN

NOT TO SCALE



SECTION B-B

NOT TO SCALE

ALL EQUIPMENT AND STRUCTURES SHOWN AS HATCHED ARE TO BE DEMOLISHED AND REMOVED.

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WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
DEMOLITION PLANS - PLAN VIEW & SECTION A-A

W.O.1000061
SHEET 6

B086-056

PROP. 316 S.S. PIPE SUPPORTS (TYP. OF 11)

THIS PART OF THE SECTION IS OMITTED FOR CLARITY

PROP. 6" DIP 90° BEND(FL-FL)(TYP)

PROP. 4" SCH. 80 PVC VENT WITH S.S. BIRD SCREEN

PROP. 6" DIP SPOOL PIECE(FL-FL)(TYP)

POUR 4"-6" THICK CLASS B CONC. "FALSE FLOOR" TO PROVIDE LEVEL SURFACE TO SET WET WELL STRUCTURE (SHADED)

PROP. 6" PLUG VALVE AND 6" CHECK VALVE (ABOVE GROUND)(TYP)

PROP. 6" DIP SPOOL PIECE (FL-FL)(TYP)

PROP. 9'-6"x 9'-0" CONC. SLAB

PROP. 6" DIP 90° BEND(FL-FL)

PROP. 6"x 6"x 6" DIP TEE (FL-FL-FL) WITH 6" DIP BYPASS PLUG VALVE WITH 6" MALE CAMLOCK FITTING WITH CAP

PROP. 6"x 6"x 6" DIP TEE (FL-FL-FL)

PROP. 6" PVC SPOOL PIECE

Ex. 6" CIP Force Main

CONNECT TO EX. 6" CIP FORCE MAIN @ EX. PLUG VALVE

PROP. 6" PVC 45° BENDS (RMJ-RMJ)

CUT AND PLUG EX. 6" CIP FORCE MAIN INV. EL. -0.71

Ex. 10" CIP Influent (TO BE CIPP LINED FROM MH TO MH)

APPROX. 80 L.F. OF 10" INFLUENT PIPE TO BE C.I.P.P. LINED (MH TO MH)

CONNECT TO EX 10" CIP WITH MEGAFLANGE ADAPTER (EBAA IRON, OR APPROVED EQUAL) INV. EL. -8.75

PROP. 10 L.F. OF 10" PVC(C-900) INFLUENT PIPE, CONNECT TO EX. SLUICE GATE WALL FLANGE, @ 0.30%

PROP. 10" PVC WITH KOR-N-SEAL BOOT (TYP.) INV. EL. -8.78(S)

PROP. 12"x 12" BUBBLER TUBE ACCESS COVER

CUT OR CORE EX. CONC. WALL FOR PROP. 10" PVC INFLUENT

PROP. HINGES (TYP. OF 4)

PROP. 6" THICK CONC. SLAB FOR PROP. ELECTRICAL CONTROL CABINET

WALL THICKNESS - 9"

FILL EX. SUMP WITH CLASS "B" CONCRETE

PROP. 8' DIA. PRE-CAST WET WELL WITH T-LOCK LINER CENTERED IN EX. PUMP ROOM

PROP. 10" INFLUENT, INV. ELEV. -8.90(SW)

FILL VOID INSIDE EX. PUMPING STATION WITH FDOT EXCAVATABLE FLOWABLE FILL

PROP. 10 L.F. OF 10" PVC INFLUENT PIPE @ 0.25%

REMOVE EX. WET WELL INTERIOR WALLS AS NECESSARY TO ACCOMODATE PROP. PRE CAST CONC. MH

PROP. 10" PVC INV. EL. -8.88(NE)

PROP. 4'ø PRE-CAST CONC. MANHOLE. WITH 3" FLANGE. MANHOLE TO BE SET 10'± N. OF SOUTH WALL AND AGAINST WEST WALL OF EX. WET WELL

14'-8" 12'-4" 9'-6" 3'-7" 3'-0" 2' 1' 9'-0" 9'-0" 15'-6" 13'-2" 9'-6" 6'-0" 5'-6" 9" 3'-0" 9'-6" 10'-0" 1'-9" 4'-1" 2'-4"

A B

PLAN VIEW

SCALE: ¼" = 1'-0"

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No.	DATE	REVISIONS
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CITY of TAMPA
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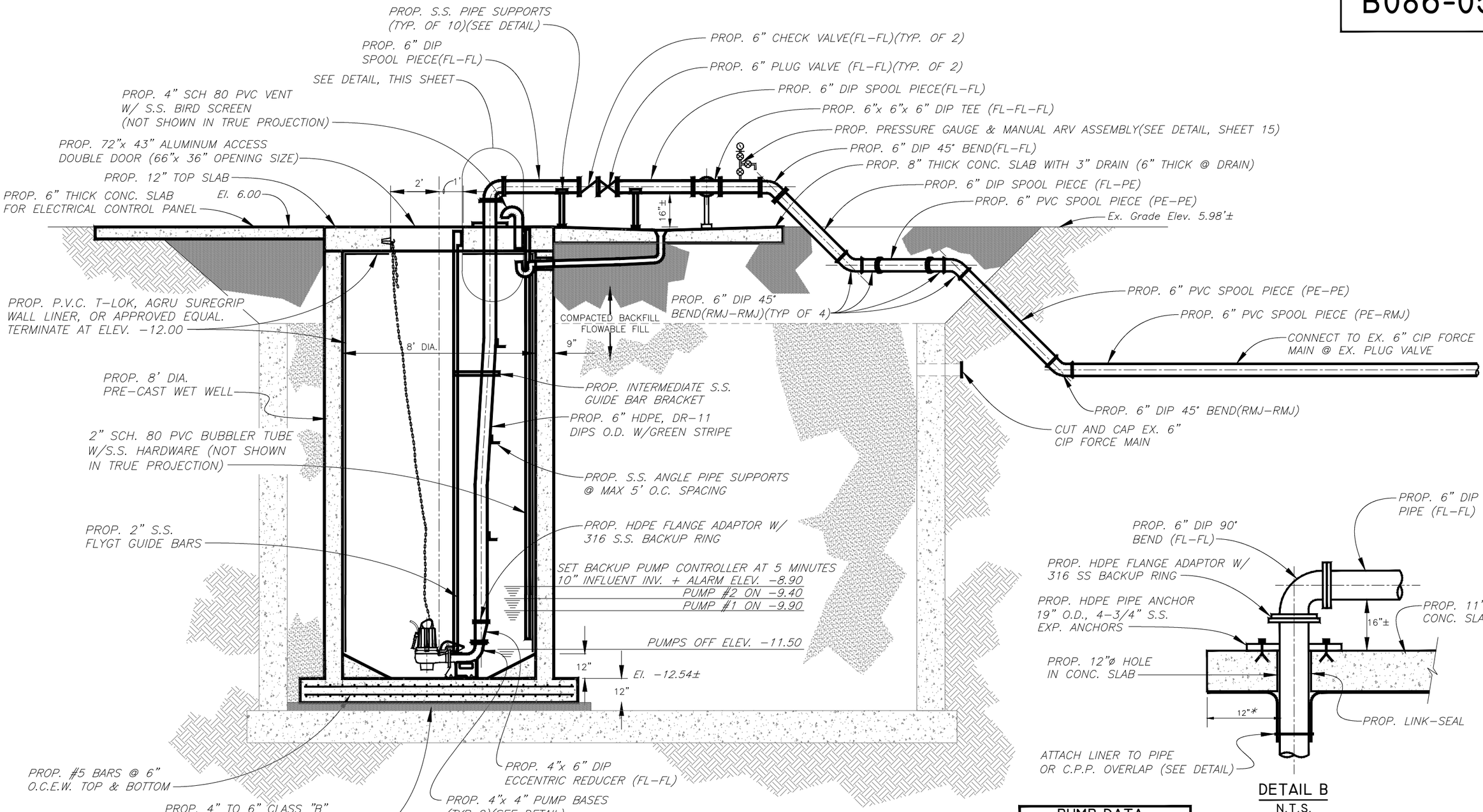
MELROSE AVENUE PUMPING STATION REPLACEMENT
PROPOSED PLANS - PLAN VIEW

W.O.1000061
SHEET 7

B086-057



SECTION A-A

SCALE: ¼" = 1'-0"

DETAIL B

N.T.S.

* DEFLECT HDPE PIPE OR INSTALL FUSED BENDS TO ACHIEVE REQUIRED OFFSET AND SEPARATION

PUMP DATA
FLYGT MODEL 3102.185 WITH 170mm IMPELLER, 5 H.P., 240V, 3 PH, 280 GPM @ 32 TDH

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JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

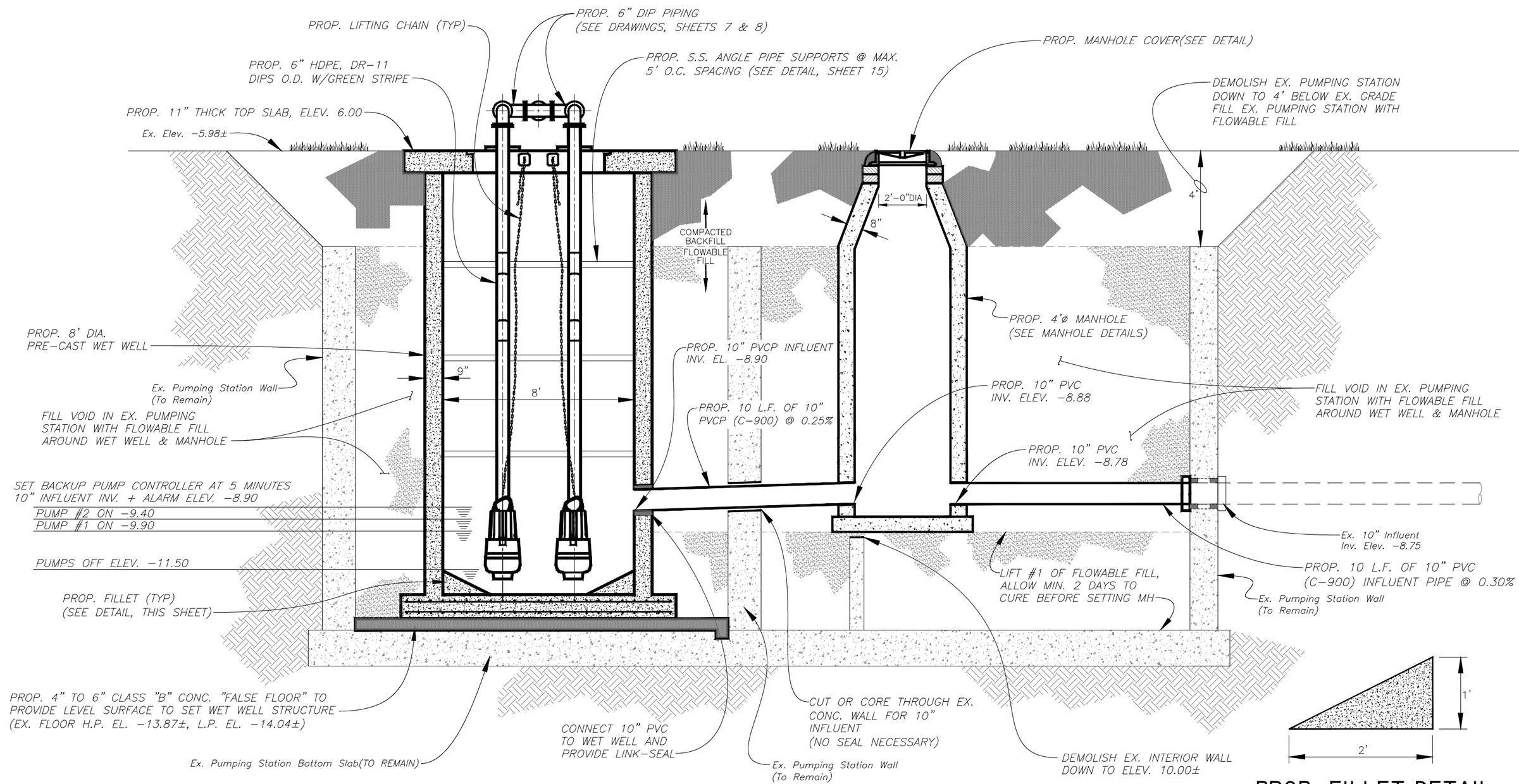
DES: CB
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
PROPOSED PLANS - SECTION VIEW

W.O.1000061
SHEET 8

B086-058



NOTE:

GUIDE RAILS AND INTERMEDIATE BRACKET
NOT SHOWN IN THIS VIEW FOR CLARITY.

SECTION B-B

SCALE: ¼" = 1'-0"

PROP. FILLET DETAIL

NOT TO SCALE

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CITY of TAMPA
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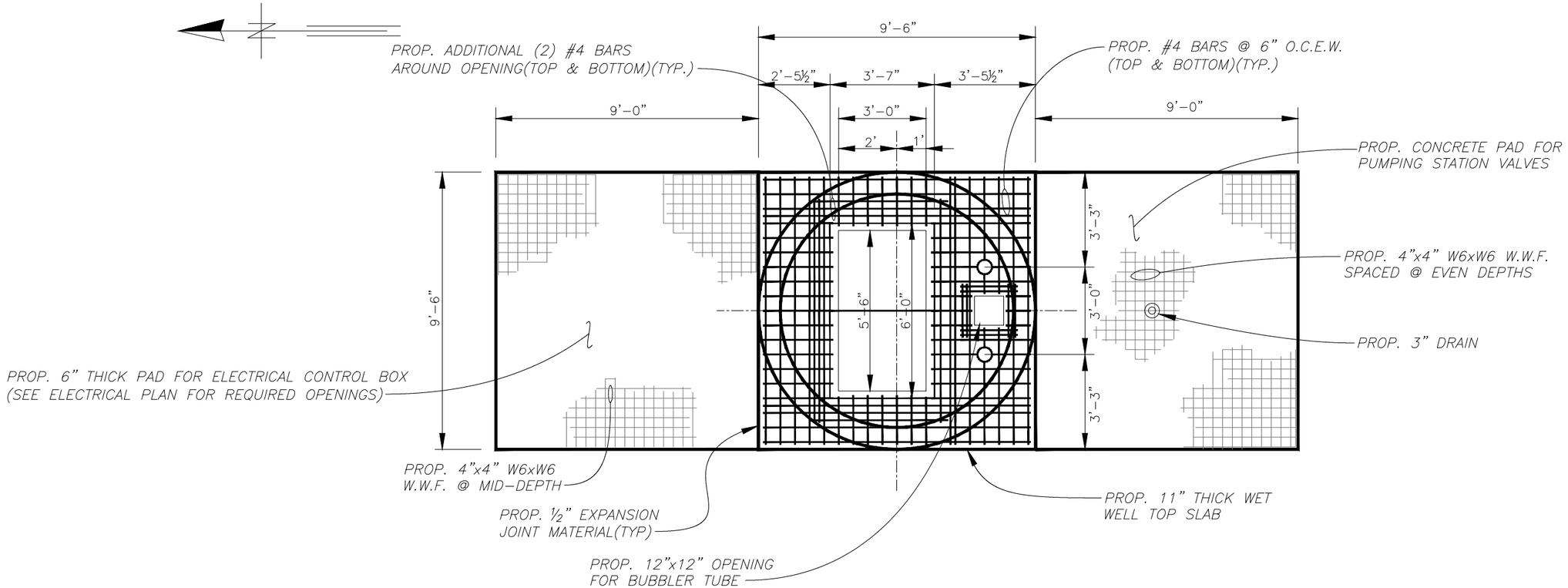
MELROSE AVENUE PUMPING STATION
REPLACEMENT
PROPOSED SECTION B-B

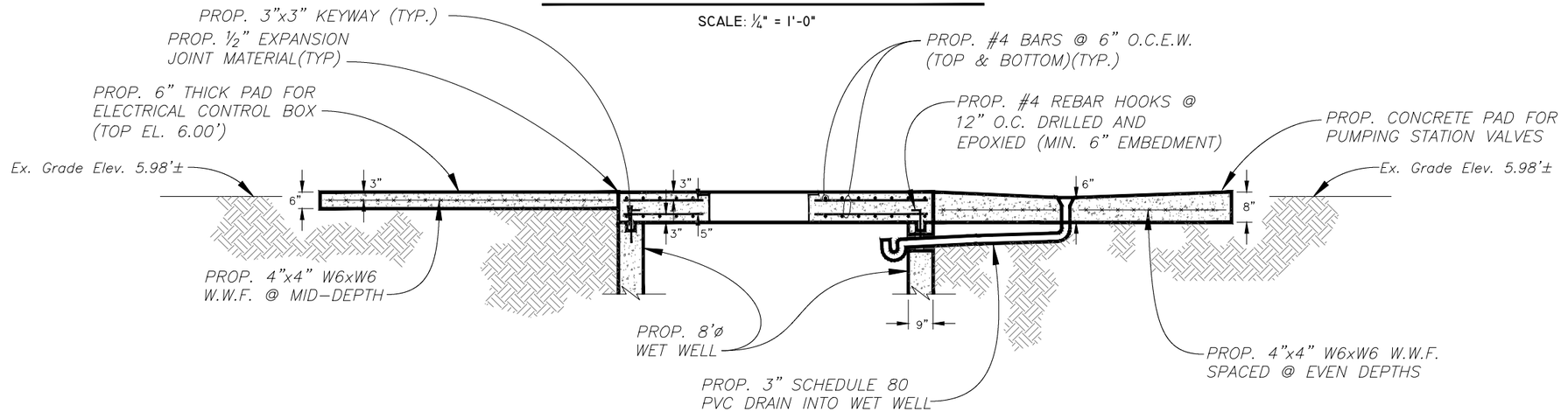
W.O.1000061
SHEET
9

B086-059



TOP SLAB REINFORCEMENT PLAN

SCALE: ¼" = 1'-0"



TOP SLAB REINFORCEMENT SECTION

SCALE: ¼" = 1'-0"

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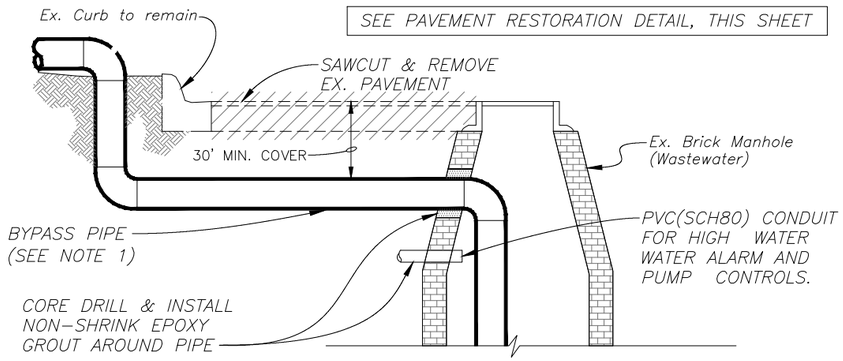
CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
CONCRETE SLAB REINFORCEMENT DETAILS

W.O. 5968
SHEET 10

B086-060

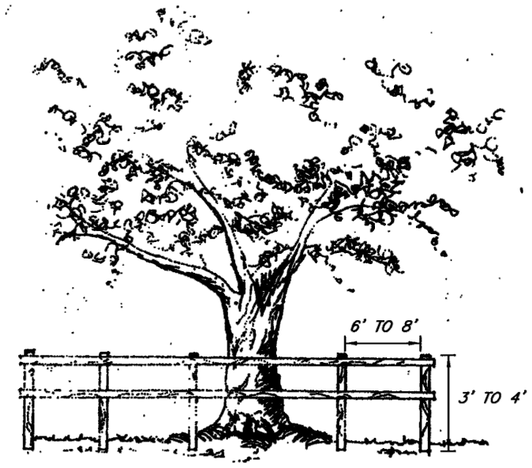


BURIED BYPASS PIPE DETAIL

NOT TO SCALE

NOTES:

1. BYPASS PIPE AND FITTINGS UNDER THE ROADWAY AND INSIDE THE MANHOLE SHALL BE HDPE C-906, DR-11. ALL JOINTS SHALL BE BUTT-FUSED. ALTERNATE PIPE MATERIALS CAPABLE OF WITHSTANDING A H-20 LIVE LOAD MAY BE SUBMITTED FOR CONSIDERATION.
2. BYPASS PIPE SHALL BE EXTENDED TO THE MANHOLE BOTTOM AND SECURED TO THE MANHOLE. CONTRACTOR SHALL SUBMIT SHOP DRAWING ON PROPOSED INSTALLATION METHOD FOR APPROVAL.
3. UPON COMPLETION OF THE BYPASS OPERATION, CONTRACTOR SHALL COMPLETELY REMOVE BYPASS PIPE AND CONDUIT FROM INSIDE MANHOLE, AND CUT PIPE AT FACE OF WALL. PIPE UNDER ROADWAY SHALL REMAIN AND BE PLUGGED AT ENDS.
4. CONTRACTOR SHALL CALL SUNSHINE TO LOCATE UTILITIES IN EXCAVATION AREA.
5. EXISTING MANHOLE IN MELROSE AVE. IS A BRICK MANHOLE.



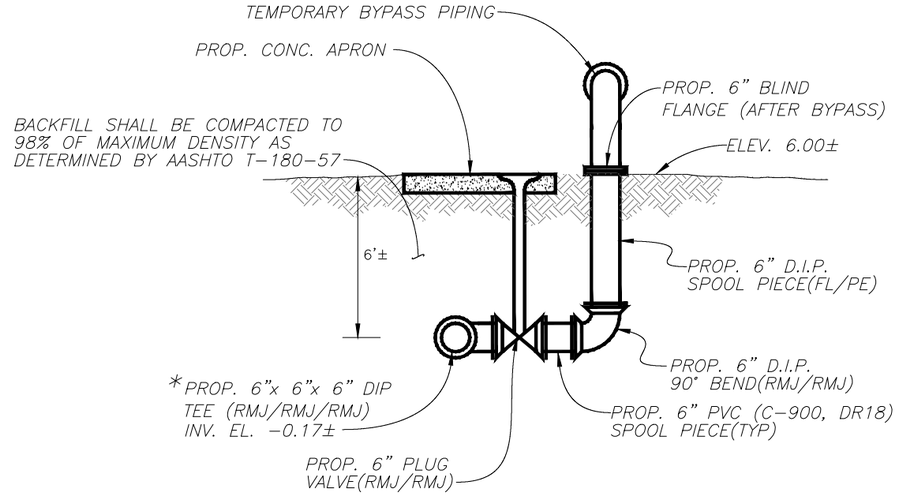
HORIZONTAL: WOOD MEMBER, ORANGE FENCING, CHAIN LINK FENCE OR OTHER APPROVED MATERIAL.

VERTICAL: WOOD MEMBER OR APPROVED MATERIAL.

BARRICADES PLACED AT DESIGNATED PROTECTIVE ROOT ZONE.

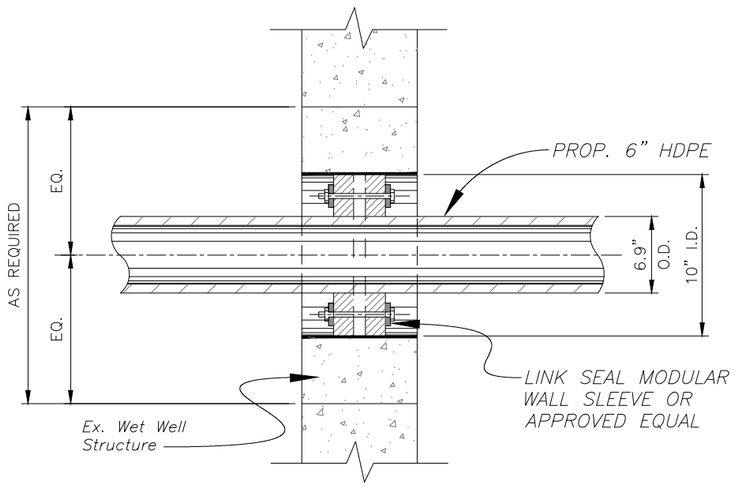
BARRICADE DETAIL FOR PROTECTED AND GRAND TREES DETAIL

NTS



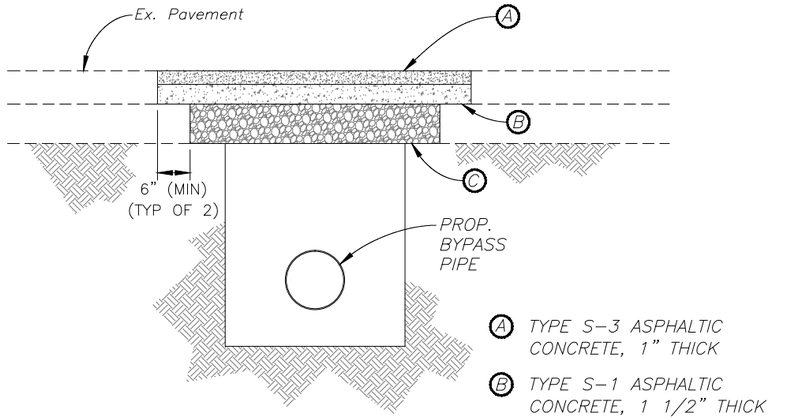
SECTION A-A

NOT TO SCALE



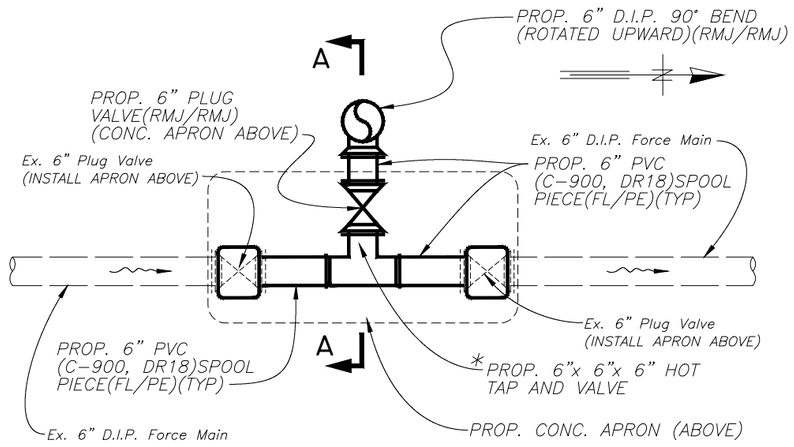
LINK SEAL DETAIL

NOT TO SCALE



PAVEMENT RESTORATION DETAIL

NOT TO SCALE



BYPASS CONNECTION DETAIL

PLAN VIEW

NOT TO SCALE

*A 6" HOT TAP AND VALVE SHALL BE UTILIZED IF INSUFFICIENT SPACE IS AVAILABLE FOR THE PROP. 6" TEE

Layout= Sheet 11; Last Saved: May 28, 2015 - 12:59pm

JACINTO CARLOS FERRAS, P.E. #49454
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WASTEWATER DEPARTMENT

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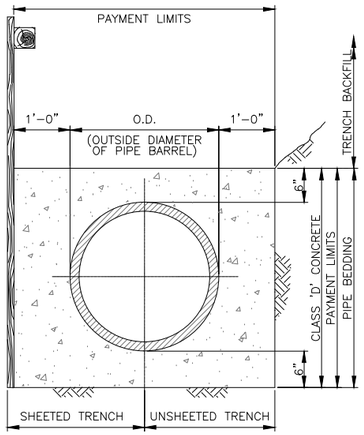
CITY of TAMPA
WASTEWATER DEPARTMENT

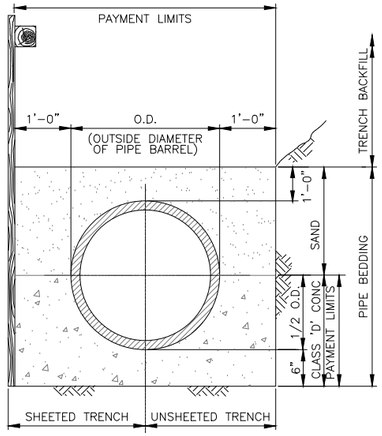
MELROSE AVE. PUMPING STATION REPLACEMENT
MISCELLANEOUS DETAILS

W.O.1000061
SHEET
11

B086-061



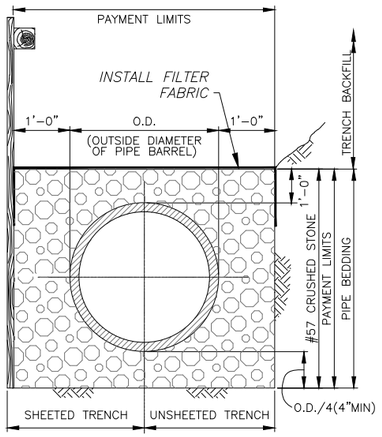
CONCRETE ENCASEMENT



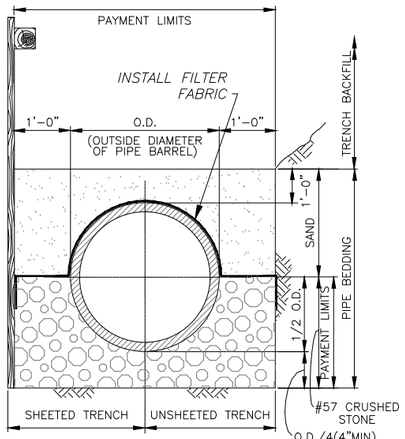
CLASS A BEDDING (CONCRETE CRADLE)

NOTES:

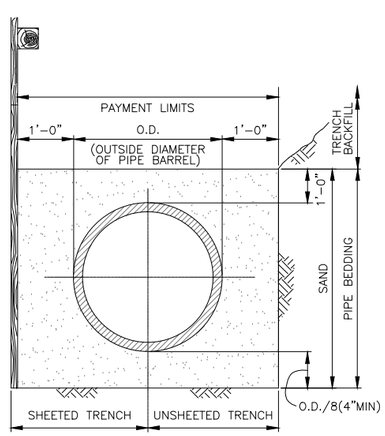
1. ALL TYPES OF PIPE BEDDING SHALL EXTEND TO UNDISTURBED EARTH AT SIDES AND BOTTOM OF THE TRENCH.
2. SAND AND CRUSHED STONE PIPE BEDDING SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS.



CLASS B-I BEDDING

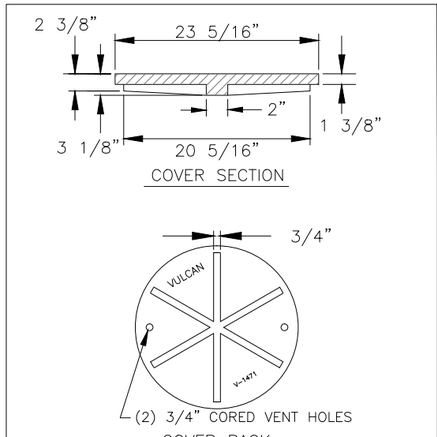


CLASS B BEDDING
(ONLY ALLOWED WITH CITY INSPECTOR APPROVAL)



CLASS C BEDDING

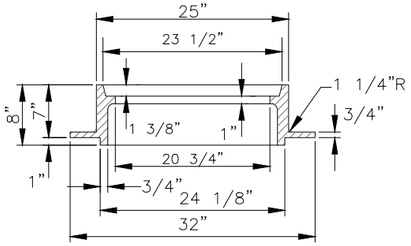
PIPE BEDDING DETAILS
N.T.S.



COVER SECTION

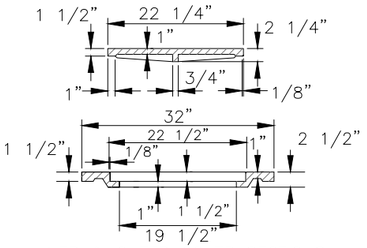
(2) 3/4" CORED VENT HOLES
COVER BACK

COVER FACE

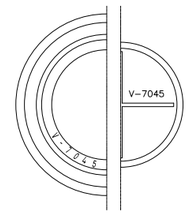


FRAME SECTION

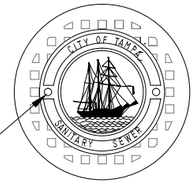
FOR MH'S OF SEWERS 24" OR LESS IN DIAMETER:
VULCAN FOUNDRY NO. V-1471,
U.S. FOUNDRY NO. 575-AT, OR EQUAL



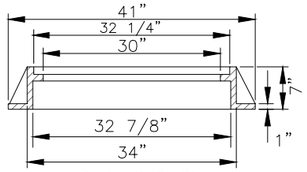
INNER & OUTER COVER SECTIONS



COVER BACKS



(2) 3/4" CORED VENT HOLES
COVER FACES



FRAME SECTION

FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER:
VULCAN FOUNDRY NO. V-7045,
U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

HEAVY DUTY CAST IRON MANHOLE FRAME & COVER DETAILS
N.T.S.

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JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

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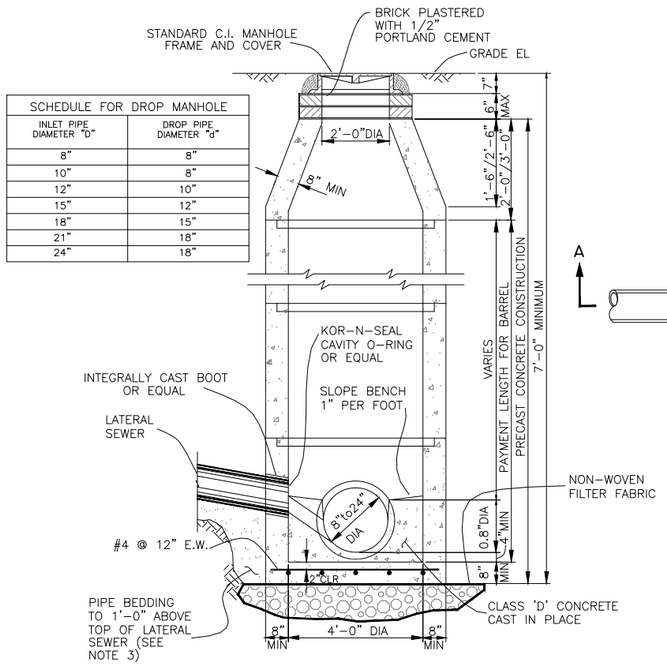
CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
BEDDING DETAILS AND
CAST IRON MANHOLE FRAME AND COVER DETAILS

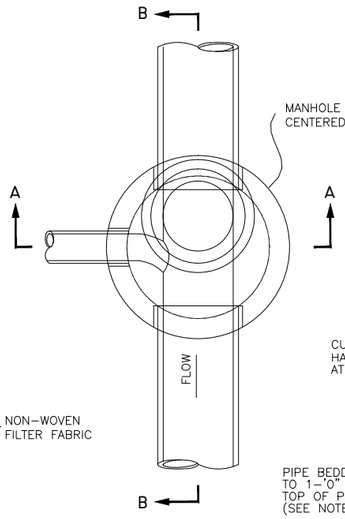
W.O.1000061
SHEET
12

B086-062

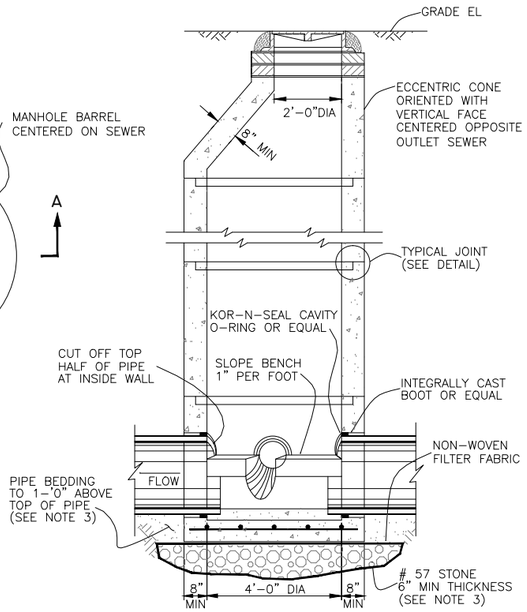
SCHEDULE FOR DROP MANHOLE	
INLET PIPE DIAMETER "D"	DROP PIPE DIAMETER "d"
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
21"	18"
24"	18"



SECTION A-A



PLAN

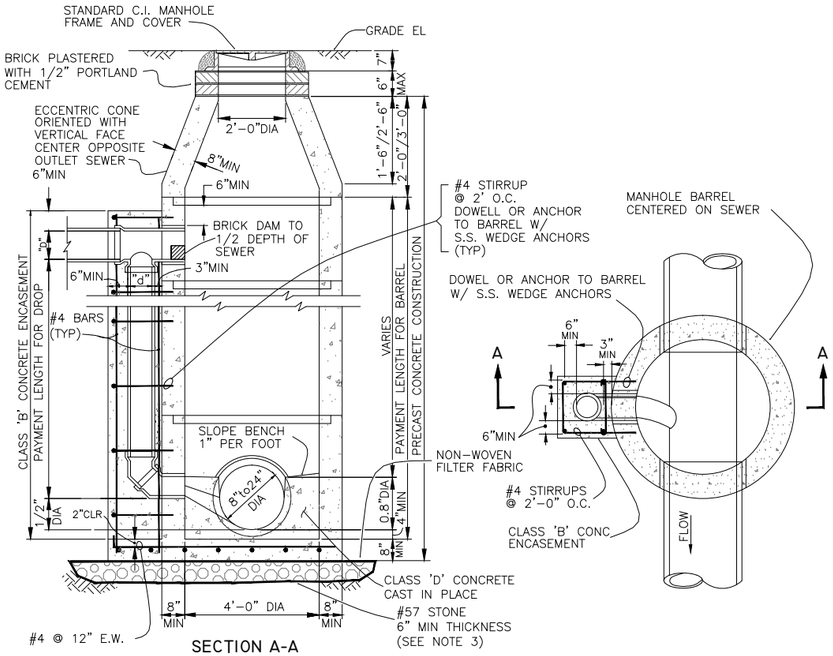


SECTION B-B

STANDARD MANHOLE – DEEP TYPE

FOR SEWERS 24" OR LESS IN DIAMETER

N.T.S

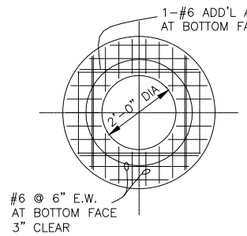


SECTION A-A

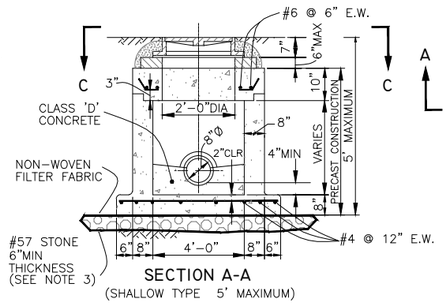
STANDARD DROP MANHOLE

FOR SEWERS 24" OR LESS IN DIAMETER

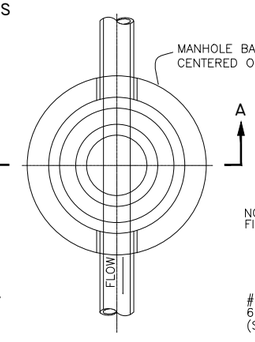
N.T.S



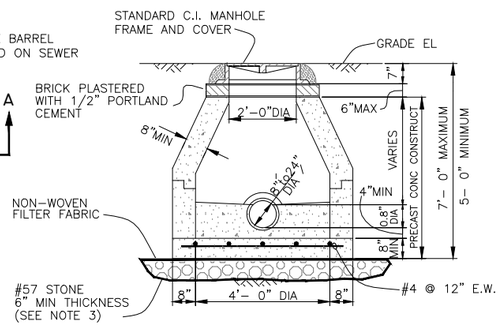
CONCRETE SLAB DETAIL
SECTION C-C



SECTION A-A
(SHALLOW TYPE 5' MAXIMUM)



PLAN



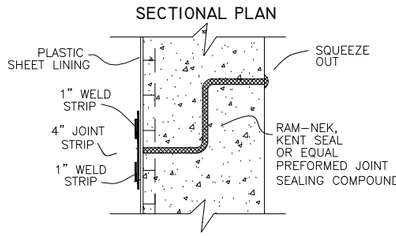
SECTION A-A
5'-0" TO 7'-0" DEEP
(SEE NOTE 4)

STANDARD MANHOLE – SHALLOW TYPE

FOR SEWERS 24" OR LESS IN DIAMETER

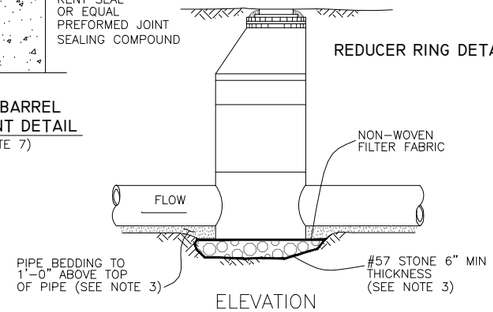
N.T.S

SECTIONAL PLAN



MANHOLE BARREL
T-LOCK JOINT DETAIL
(SEE NOTE 7)

REDUCER RING DETAIL



ELEVATION
FOR SEWERS 24" OR LESS IN DIAMETER
N.T.S

MANHOLE SHALL BE "T-LOCK" LINED

NOTES

1. REINFORCING STEEL FOR ALL MANHOLES SHALL CONFORM TO ASTM-C478 AND PLACED AS DESCRIBED IN THE SPECIFICATIONS.
2. ALL PIPE STUBS FROM MANHOLES FOR FUTURE CONNECTIONS OR OTHER CONTRACT DIVISIONS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM WITHIN THE MANHOLE.
3. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS AND PLACEMENTS AND COMPACTION OF PIPE AND STRUCTURE BEDDING.
4. STANDARD SHALLOW-TYPE MANHOLES WITH DEPTHS BETWEEN A MAXIMUM OF 7'-0" AND A MINIMUM OF 5'-0" MUST HAVE A CONCRETE CONE FOR THE TOP SECTION.
5. ALL MANHOLE JOINTS MUST BE SEALED WITH AN ACCEPTABLE JOINT SEALING COMPOUND REGARDLESS OF WHETHER AN O-RING GASKET IN A PREFORMED GROOVE IS USED.
6. FILTER FABRIC SHALL BE NON-WOVEN FABRIC PER D.O.T. SPECIFICATION SECTIONS 514 AND 985 AND SHALL BE WRAPPED ENTIRELY AROUND THE #57 STONE.
7. PLASTIC SHEET LINER SHALL BE "T-LOCK" BY AMERON INTERNATIONAL OR APPROVED EQUAL.

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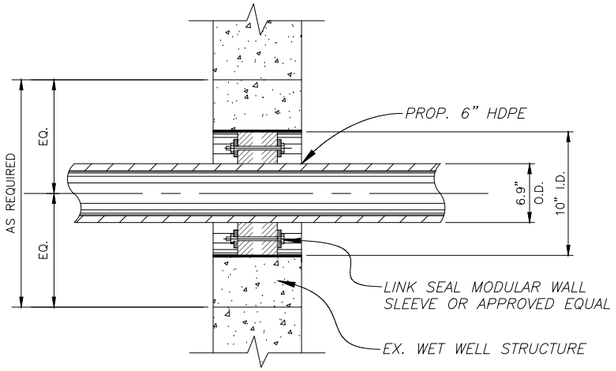
CITY of TAMPA
WASTEWATER DEPARTMENT

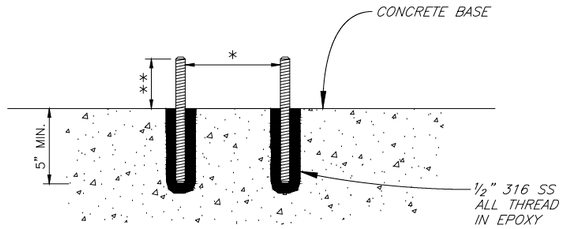
MELROSE AVENUE PUMPING STATION REPLACEMENT
STANDARD MANHOLE DETAILS

W.O.1000061
SHEET 13

B086-063



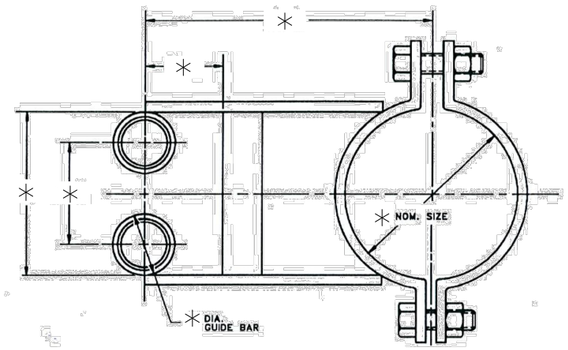
LINK SEAL DETAIL "D"
N.T.S.

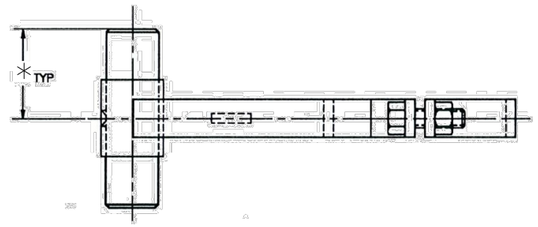


* ALIGNMENT OF ANCHOR BOLTS SHALL BE AS RECOMMENDED BY PUMP MANUFACTURER.

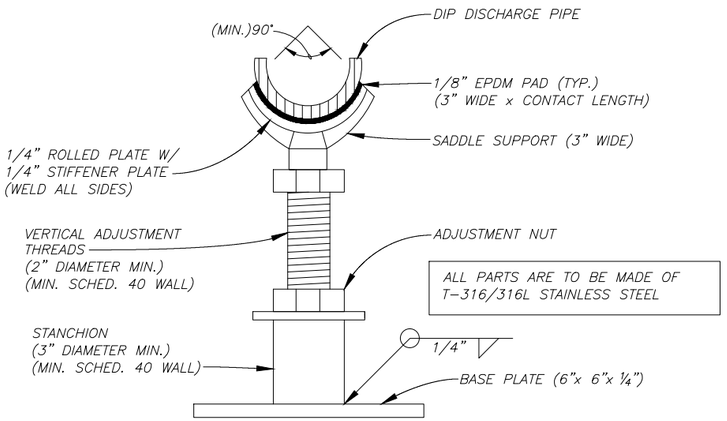
** CONTRACTOR SHALL PROVIDE A MINIMUM ½ INCH BOLT PROTRUSION ABOVE THE FINAL NUT LOCATION AFTER THE NUT IS TIGHTENED TO MANUFACTURE'S RECOMMENDATION.

ANCHOR BOLT DETAIL
N.T.S.

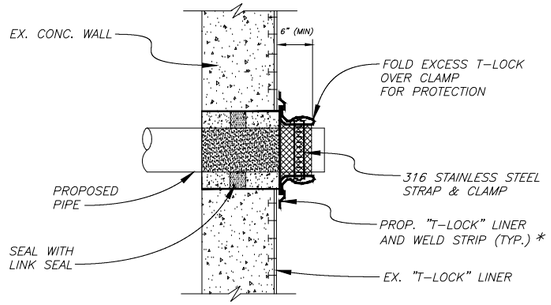




INTERMEDIATE GUIDE BAR BRACKETS
N.T.S.

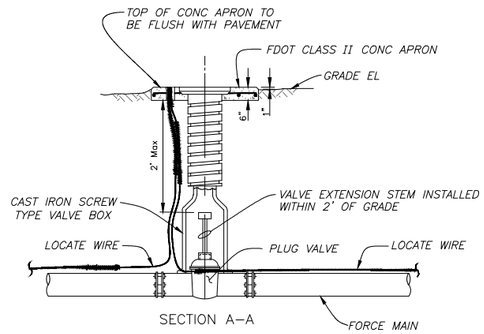


SECTION VIEW - STAINLESS STEEL STANCHION SADDLE SUPPORT
N.T.S.



PIPE TO LINED STRUCTURE
N.T.S.

*ALTERNATIVE: CONTRACTOR MAY COAT WITH 125 MILS C.P.P. AND OVERLAP EXISTING T-LOCK BY 3".



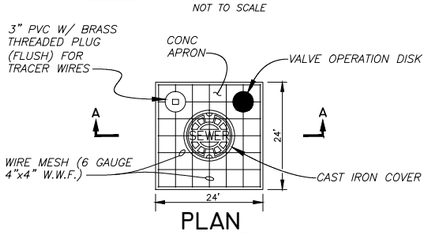
VALVE BOX DETAIL
NOT TO SCALE

IMPORTANT - FOR EACH OPERABLE VALVE:
PROVIDE A BRASS IDENTIFICATION TAG ANCHORED TO THE CONCRETE APRON THAT IS A MINIMUM 2" IN DIAMETER AND 1/8-INCH THICK. THE TAG SHALL BE ENGRAVED WITH "SEWER", SIZE OF VALVE, TYPE OF VALVE, AND DIRECTION AND NUMBER OF TURNS TO OPEN.

FOR EXAMPLE, A 4-INCH PLUG VALVE ON A WASTEWATER FORCE MAIN THAT REQUIRES 1/4 TURNS TO THE LEFT(COUNTERCLOCKWISE) TO BE FULLY OPEN WOULD REQUIRE THE FOLLOWING ON AN IDENTIFICATION TAG:

SEWER
4" P.V.
1/4 T.O.L.
2"Ø

VALVE OPERATION DISK
NOT TO SCALE

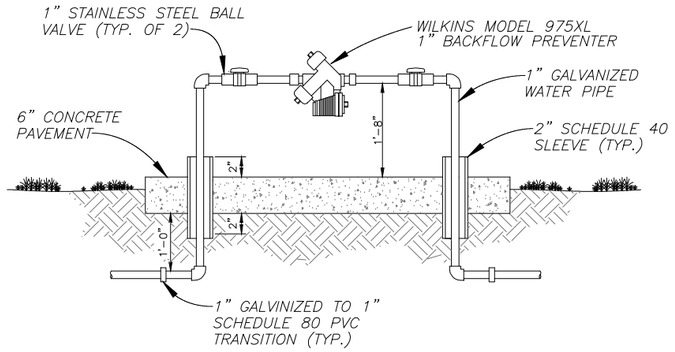


PLAN

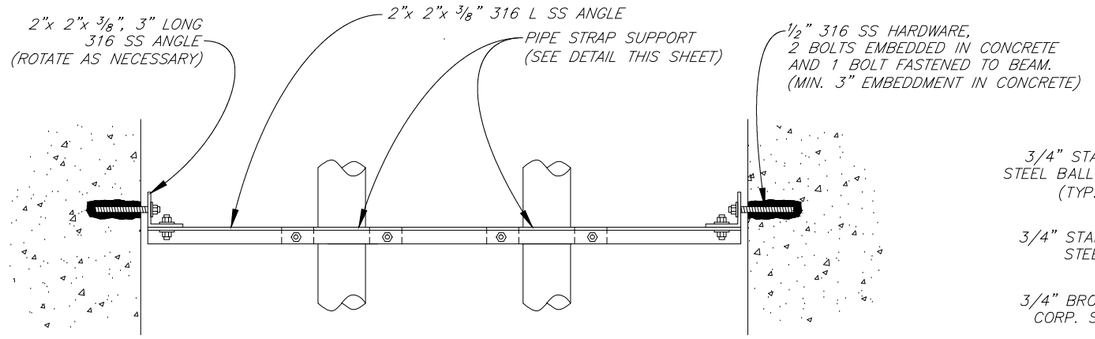
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: CB DRN: BB CKD: DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	MELROSE AVE. PUMPING STATION REPLACEMENT MISCELLANEOUS DETAILS	W.O.1000061 SHEET 14
	3						
	2						
	1						

Layout - Sheet 14; Last Saved: May 28, 2015 - 10:46am

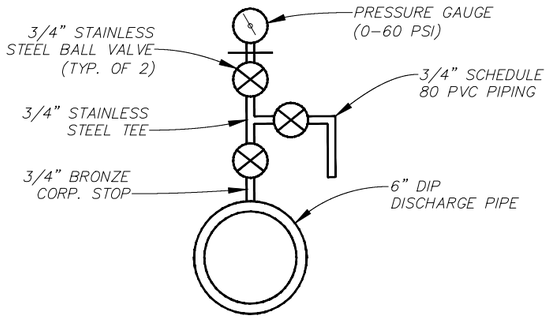
B086-064



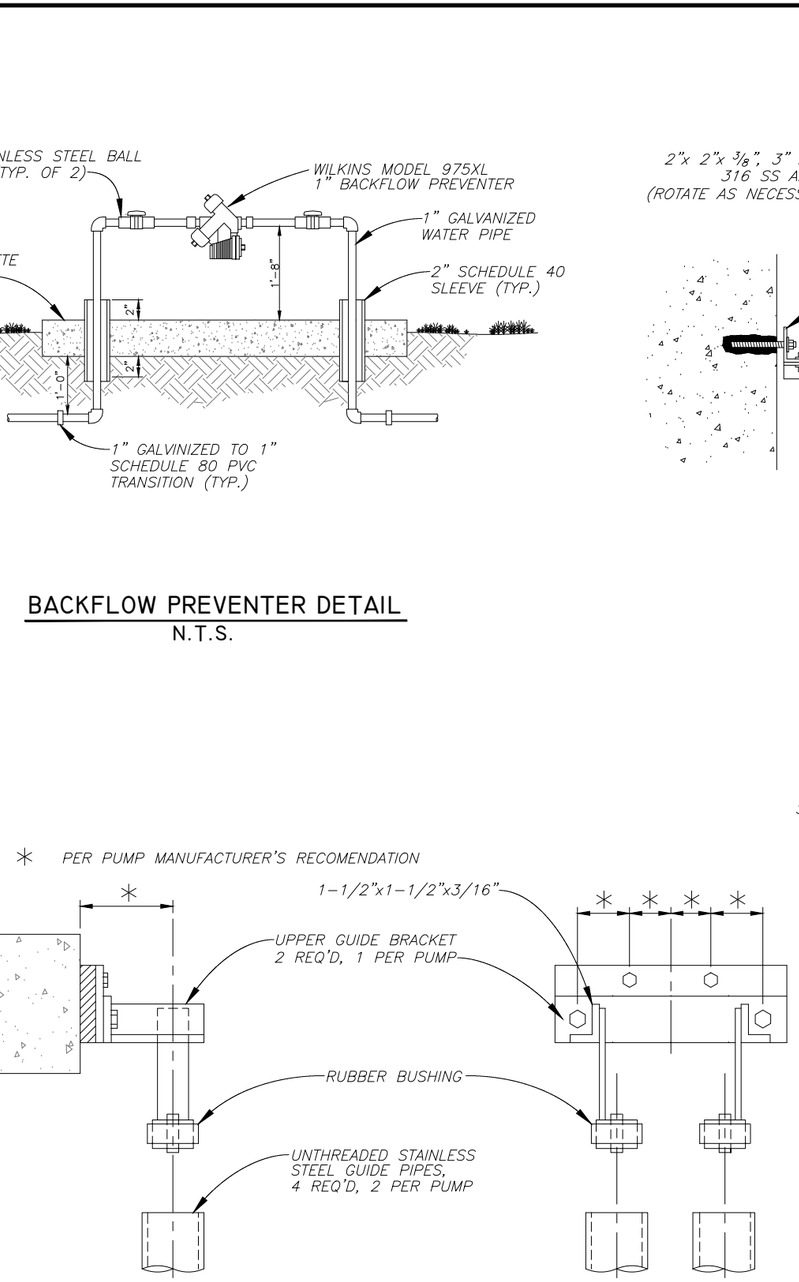
BACKFLOW PREVENTER DETAIL
N.T.S.



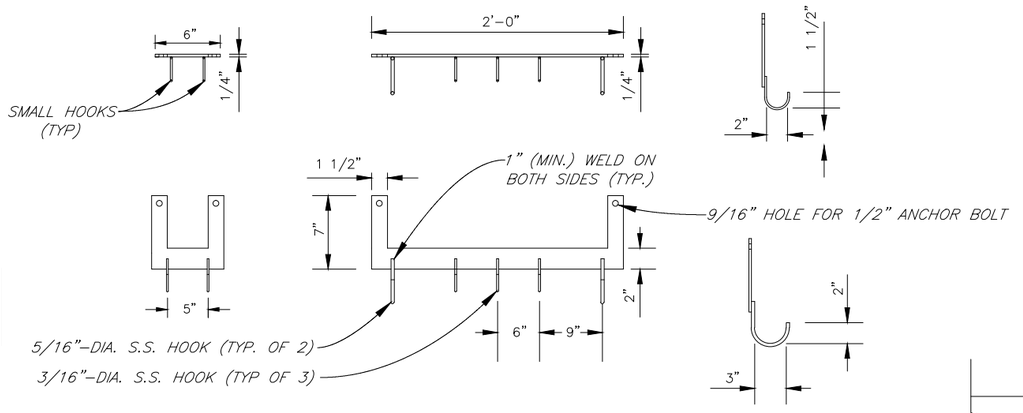
PIPE SUPPORT ASSEMBLY
N.T.S.



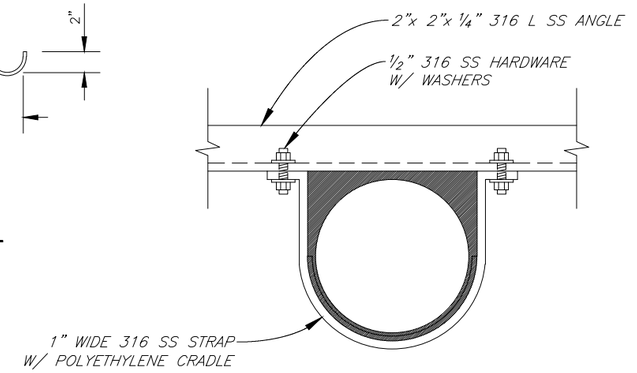
AIR RELEASE AND PRESSURE GAUGE
N.T.S.



GUIDE BRACKET DETAIL (SUPPLIED WITH PUMPS)
N.T.S.



PROP. STAINLESS STEEL HOOK RACKS
N.T.S.



PIPE STRAP SUPPORT
N.T.S.

Layout- Sheet 15; Last Saved: May 28, 2015 - 1:05pm

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

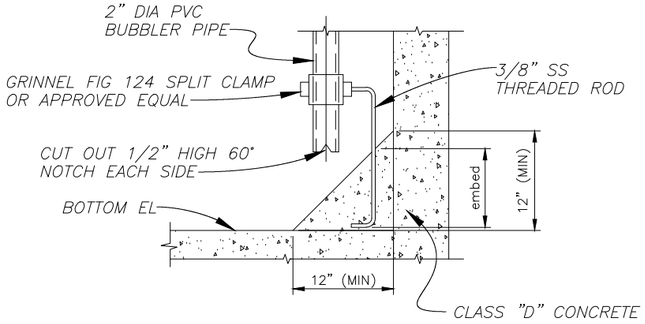
DES: CB
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVE. PUMPING STATION REPLACEMENT MISCELLANEOUS DETAILS

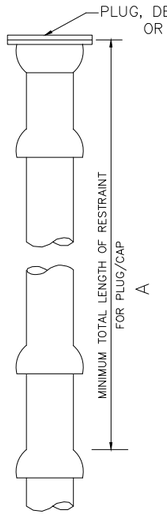
W.O.1000061
SHEET 15

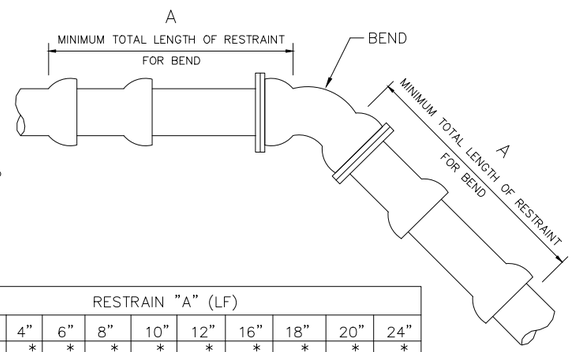
B086-065



BUBBLER DETAIL

N.T.S.





RESTRAIN "A" (LF)									
FITTING	4"	6"	8"	10"	12"	16"	18"	20"	24"
11-1/4°	2*	2*	3*	4*	4*	5*	6*	6*	7*
22-1/2°	3*	5*	6*	7*	9*	11*	12*	13*	15*
45°	7*	10*	13*	15*	18*	23	25	27	31
90°	17*	24	31	37	43	55	60	65	75
PLUG/CAP	38	53	69	83	96	126	139	153	178

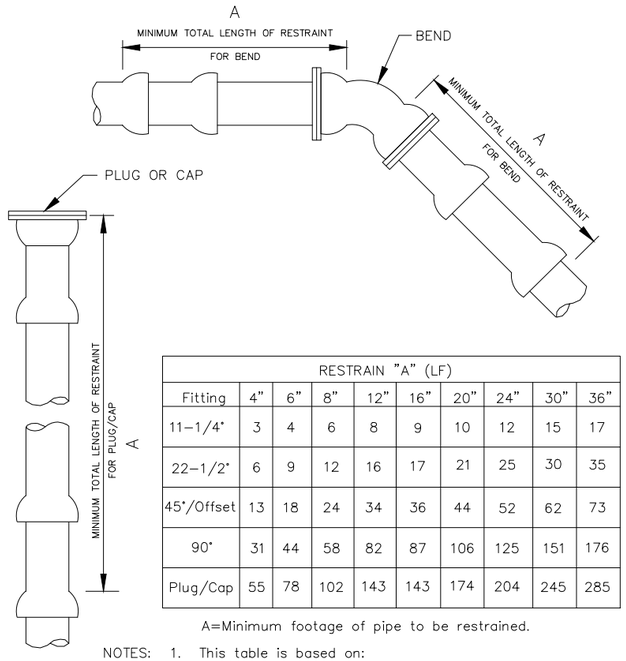
A=MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED

* MINIMUM ONE PIPE JOINT UPSTREAM AND DOWNSTREAM OF EACH FITTING SHALL BE RESTRAINED

NOTES:
1. THIS TABLE IS BASED ON:
   A) MAXIMUM TEST PRESSURE OF 100 psi
   B) LAYING CONDITION CLASS 'C'
   C) POOR SOIL CONDITIONS
   D) HORIZONTAL BENDS ONLY (SEE NOTE 2)
   E) USING PVC
2. RESTRAINED LENGTHS FOR VERTICAL BENDS AND TEES ARE TO BE DETERMINED ON A CASE BY CASE BASIS, AND SPECIFIED ON THE DESIGN PLANS.
3. RESTRAINING DEVICES FOR PVC PIPE SHALL BE BY MEGALUG OR EQUAL, MEETING UNI-B-13.
4. ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

FITTING RESTRAINT DETAIL

(AWWA C900/C905 PVC PIPE)

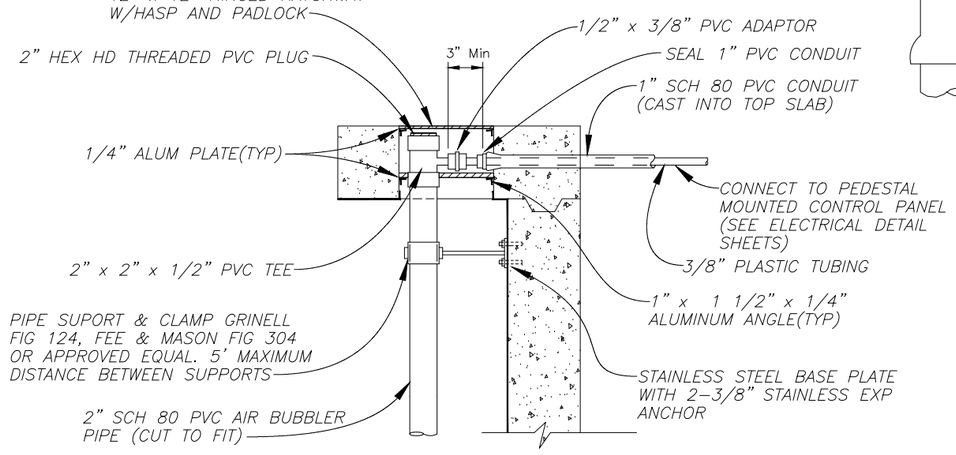


RESTRAIN "A" (LF)									
Fitting	4"	6"	8"	12"	16"	20"	24"	30"	36"
11-1/4°	3	4	6	8	9	10	12	15	17
22-1/2°	6	9	12	16	17	21	25	30	35
45°/Offset	13	18	24	34	36	44	52	62	73
90°	31	44	58	82	87	106	125	151	176
Plug/Cap	55	78	102	143	143	174	204	245	285

A=Minimum footage of pipe to be restrained.

NOTES:
1. This table is based on:
   a) maximum test pressure of 190 psi
   b) laying condition type 2 (see Details 2.01 and 2.02)
   c) poor soil conditions
   d) using D.I.P.
   e) 3 feet of cover for 12" and smaller mains; 4 feet of cover for 16" and larger mains
   f) Horizontal bends only – Engineer to submit calculations for vertical restraints
2. For polywrapped D.I.P., multiply the footage by 1.25
3. For PVC pipe, multiply footage by 1.2.
4. Restrained pipe shall be manufactured restrained pipe, push-on restraints or mechanical joint pipe restrained by Megalug or equivalent.
5. Any additional fittings within the restrained section shall be restrained accordingly.

WATER PIPE RESTRAINT DETAIL



BUBBLER DETAIL

N.T.S.

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: CB
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVE. PUMPING STATION
REPLACEMENT
BUBBLER AND PIPE RESTRAINT DETAILS

W.O.1000061
SHEET
16

B086-066

WALL BEAM SCHEDULE

MARK	SIZE	BARS	TIES	REMARKS
WB-1	18"x22"	4-#8 E.F.	#4; 1@4", 2@5", 2@6", 2@8" 2@10"(X4) CONT.@12"	IN HAUNCHES, BEGIN 12" WITH FACE OF WALL
WB-2	do	5-#8 E.F.	do (X2)	do
WB-3	do	2-#8 E.F.	#3@12"	
WB-4	15"x22"	3-#8 E.F.	do	
WB-5	18"x22"	4-#8 E.F.	#4; 1@4", 2@5", 2@6", 2@8" 2@10"(X4) CONT.@12"	
WB-6	18"x16"	3-#8 E.F.	#3; 2@11", 2@6", 2@8"(X6), CONT.@12"	
WB-7	16"x16"	3-#7 E.F.		
WB-8	16"x16"	3-#7 E.F.		
WB-9	16"x18"	3-#7 E.F.	#3@12"	
WB-10	16"x20"	4-#8 E.F.	#3; 2@8", 1@10"(X2) CONT. @12"	
WB-11	16"x16"	3-#7 E.F.		SEE SEC. F-F
WB-12	16"x16"	3-#7 E.F.		
WB-13	16"x20"	3-#7 E.F.	#3@12"	
WB-14	16"x16"	3-#7 E.F.		

BEAM SCHEDULE

MARK	SIZE	TOP	TRUS	BOT	TIES	REMARKS
B-1	22"x18"	2-#7		2-#7	#3@12"	
B-2	do	do		do	do	BEND INTO B-1 & B-3
B-3	do	do		do	do	
B-4	12"x18"	2-#5		2-#5	do	
B-5	10"x15"	2-#5		2-#5	#2@12"	
B-6	12"x16"	2-#6	2-#5	2-#6	#3@12"	
B-7	14"x24"	2-#5	2-#8	2-#8	#3; 1@6", 2@8"(X2) CONT.@12"	
B-8	12"x16"	2-#6	2-#6	2-#7	#3; 1@6", 2@8"(X2) CONT.@12"	
B-9	16"x16"	3-#8		3-#8	#3@12"	

STAIR SCHEDULE

MARK	THICK	LONG BARS	SHORT BARS	REMARKS
ST-1	4"	4-#3	#3	SEE SEC. A-A
ST-2	6"	6-#5	#3 ⌐⌐	6-#5 DOWELS E.F. THRU B-5
ST-3	do	9-#5	#3	
ST-4	do	do	#3 ⌐⌐	
ST-5	do	6-#5	#3	
ST-6	do	6-#5	#4 ⌐⌐ @ WALLS	
ST-7	do	do	do	
ST-8	do	do	do	
ST-9	do	do	do	
ST-10	do	do	do	

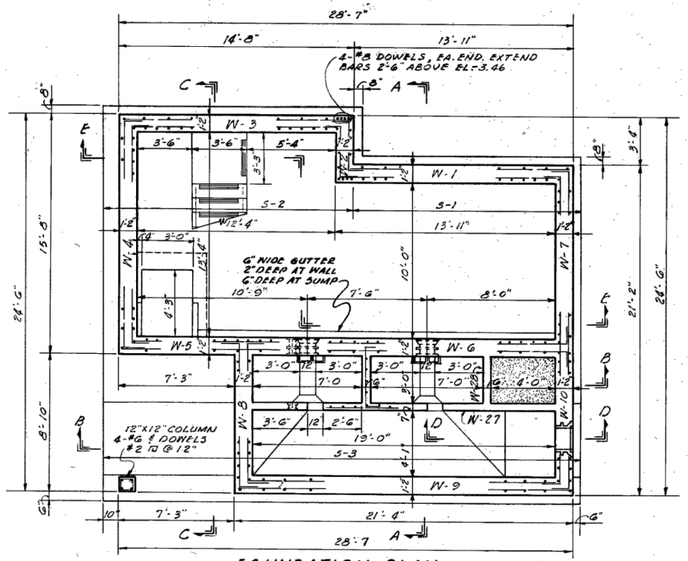
SLAB SCHEDULE

MARK	THICK	TOP	TRUSS	BOT	TEMP	REMARKS
S-1	18"	#8@22"	#8@22"	#8@22"	#6@18"E.F.	SEE SEC. A-A
S-2	do	#8@11"	#8@11"	#8@11"	do	
S-3	do	#8@22"		#8@22"	do	SEE SEC. A-A
S-4	5"			#3@9"	#3@9"	PROVIDE EXTRA BARS AT OPENINGS
S-5	do			do	do	do
S-6	do			do	do	do
S-7	14"@12"	#6@16"		#5@16"	#5@16"E.F.	
S-8	12"	#6@16"	#6@16"	#6@16"	#6@12"E.F.	SEE SEC. E-E AND A-A
S-9	do	#6@12"		#6@12"	#6@16"E.F.	
S-10	7"	#4@18"		#4@18"	#3@12"E.F.	EXTEND BARS THRU OVERHANG
S-11	10"	#5@14"		#5@14"	#5@18"E.F.	
S-12	do	do	#3@16"	do	do	
S-13	do	do		do	do	
S-14	7"		#4@18"	#4@18"	#3@12"E.F.	SEE STAIR SCHEDULE
S-15	7"	#3@20"	#4@20"	#4@20"	#3@12"E.F. #4@12"B.F.	
S-16	8½"	#5@6"		#5@12"	#4@12"E.F.	SEE SEC. J-J

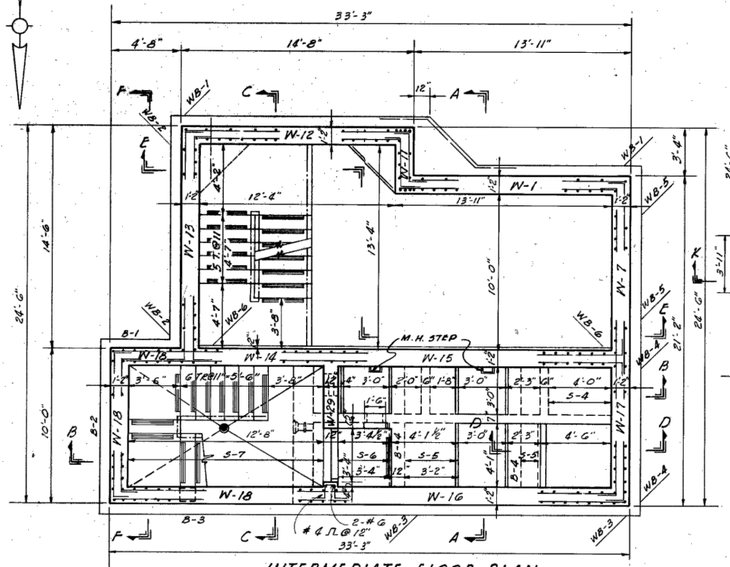
WALL SCHEDULE

MARK	DOWELS	VERT.	HORIZ.	REMARKS
W-1	#6@9"E.F.	#6@9"I.F., #6@18"O.F.	#4@12"E.F.	EXTEND VERT. BARS INTO WALL ABOVE
W-2	do	do	do	EXTEND VERT. BARS INTO WALL ABOVE FOR DOWELS
W-3	do	#6@9"I.F., #6@18"O.F.	do	do
W-4	do	do	do	do
W-5	do	do	do	do
W-6	do	do	do	do
W-7	do	do	do	EXTEND VERT. BARS INTO WALL ABOVE
W-8	do	#6@9"E.F.	do	EXTEND VERT. BARS INTO SLAB ABOVE AND HOOK
W-9	#6@18"E.F.	#6@18"E.F.	do	EXTEND VERT. BARS INTO WALL ABOVE FOR DOWELS
W-10	#6@9"E.F.	#6@9"E.F.	do	do
W-11	#6@18"O.F.	#6@9"I.F., #6@18 O.F	do	EXTEND O.F. VERT. BARS INTO WALL ABOVE FOR DOWELS
W-12	#6@18"O.F.	#6@9"I.F., #6@18"O.F.	do	do
W-13	do	do	do	do SEE SECT. E-E
W-14	do	do	do	EXTEND I.F. VERT. BARS INTO WALL ABOVE FOR DOWELS
W-15	do	#6@9"E.F.	do	
W-16	#6@18"E.F.	do	do	
W-17		do	do	
W-18	#6@9"E.F.	do	do	EXTEND O.F. VERT. BARS INTO WALL ABOVE FOR DOWELS
W-19	#6@12"O.F.	#4@12"E.F.	do	BEND VERT. BARS INTO ROOF
W-20		do	do	do
W-21	#4@12"I.F.	do	do	do
W-22	#4@12"I.F.	do	do	do
W-23		do	do	
W-24		#5@9"O.F., #4@12"I.F.	do	
W-25	#4@12"I.F.	do	do	
W-26	#5@9"O.F.,#4@12"I.F.	do	do	
W-27	#4@9"CENTER	#4@9"CENTER	#4@9"CENTER	
W-28	#3@9"CENTER	#3@9"CENTER	#3@9"CENTER	
W-29	#5@18"E.F.	#5@18"E.F.	#4@12"E.F.	
W-30	#5@9"I.F.,#5@18"O.F.	#5@9"I.F., #5@18"O.F.	do	SEE SECTION E-E
W-31	#4@12"I.F.	#4@12"E.F.	do	SEE SECTION F-F

THIS IS AN AS-BUILT, RECORD DRAWING
INCLUDED IN THIS SET FOR REFERENCE ONLY
TO REFLECT EXISTING CONDITIONS
THERE IS NO PROPOSED WORK ON THIS SHEET



FOUNDATION PLAN
SCALE: 1/4"=1'-0"



INTERMEDIATE FLOOR PLAN
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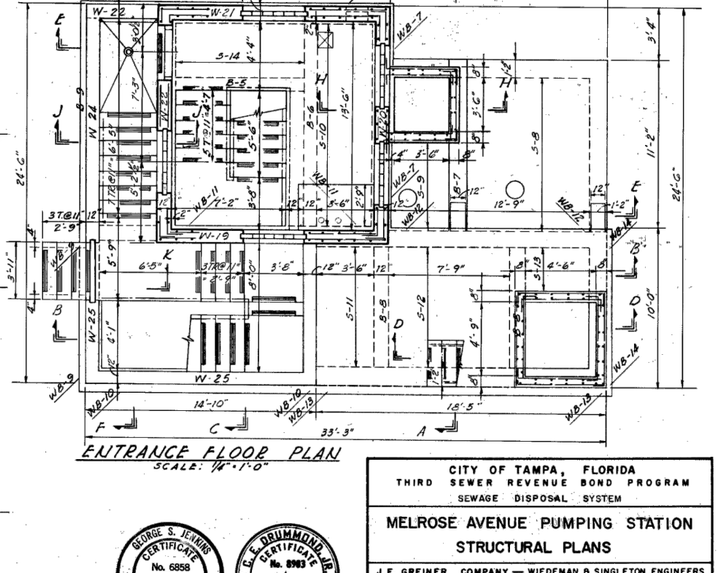


ENTRANCE FLOOR PLAN
SCALE: 1/4"=1'-0"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

J. E. DRUMMOND, JR. CERTIFICATE No. 8963 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MELROSE AVENUE PUMPING STATION
STRUCTURAL PLANS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES.	E.N.C.	
DRN.	E.N.C.	
CKD.	J.E.G.	
SCALE	AS SHOWN	
DATE	MAY, 1964	

PROJECT 24
SECTION B
SUBDISTRICT A-2

SHEET 9 OF 13

K:\WW_PROJECTS\2014\2014_WO_5968MELROSEPSREPLACEMENT\DWG\5968-SHEET-17-18.DWG

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

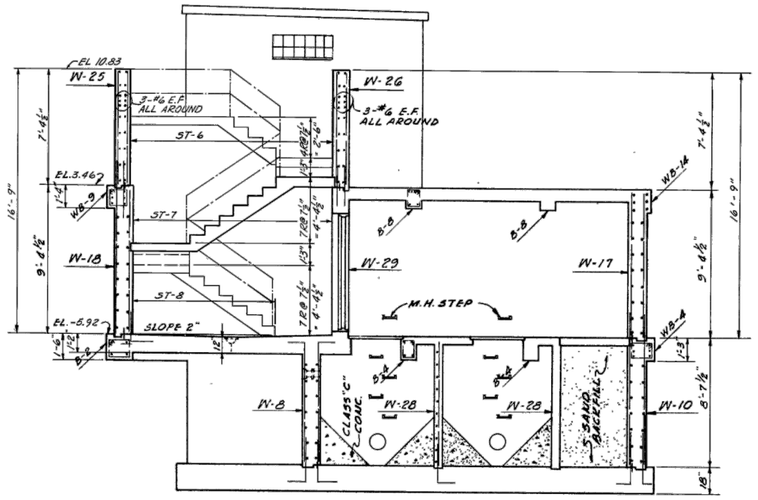
DES: CB
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

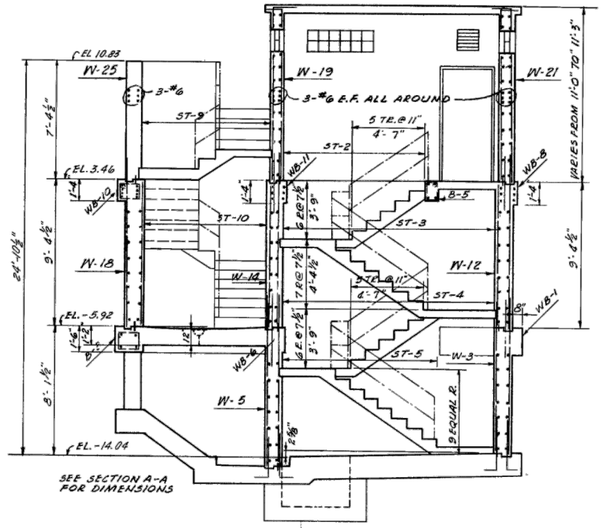
MELROSE AVENUE PUMPING STATION REPLACEMENT
AS-BUILT RECORD DRAWING #108-09
FOR REFERENCE PURPOSES ONLY

W.O.1000061
SHEET 17

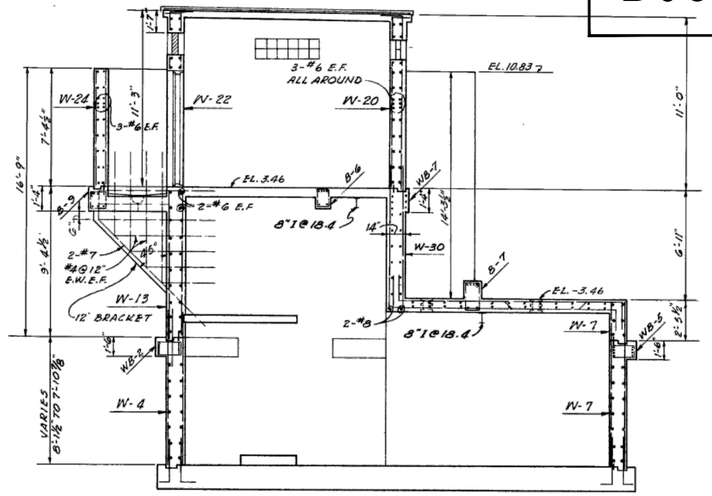
B086-067



SECTION B-B
SCALE: 1/4"=1'-0"



SECTION C-C
SCALE: 1/4"=1'-0"



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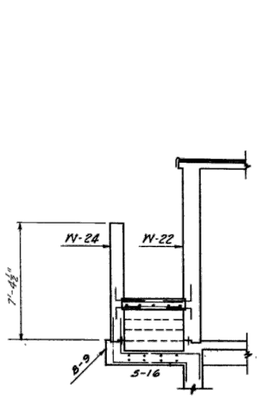
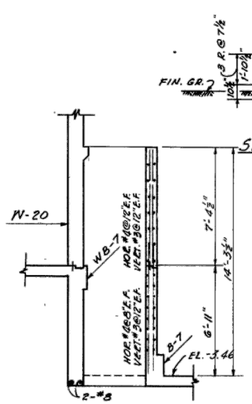
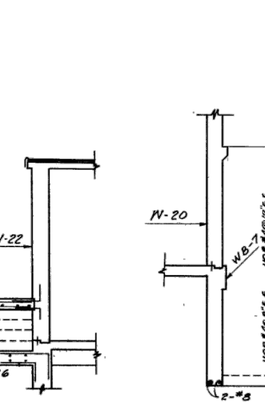


SECTION J-J
SCALE: 1/4"=1'-0"

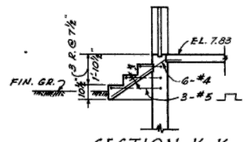


SECTION H-H
SCALE: 1/4"=1'-0"



80 YEAR BOND TYPE ROOFING SEE SPECS.

ROOF PLAN



SECTION K-K
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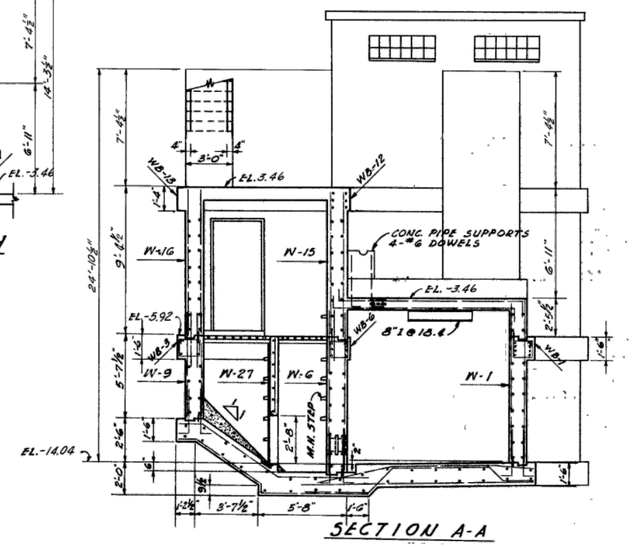
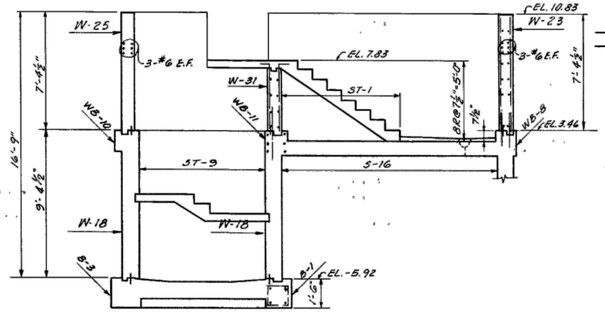
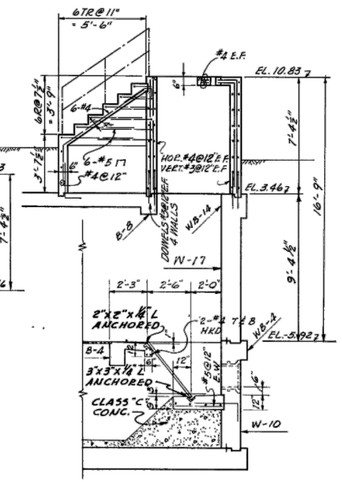


SECTION A-A



SECTION F-F
SCALE: 1/4"=1'-0"



SECTION D-D
SCALE: 1/4"=1'-0"

THIS IS AN AS-BUILT, RECORD DRAWING INCLUDED IN THIS SET FOR REFERENCE ONLY TO REFLECT EXISTING CONDITIONS THERE IS NO PROPOSED WORK ON THIS SHEET

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MELROSE AVENUE PUMPING STATION
STRUCTURAL SECTIONS

J.E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.F.
DRN. B.B.
CKD. H.N.F.
SCALE AS SHOWN
DATE MAY, 1964

PROJECT 24
SECTION B
SUBDISTRICT A-2

SHEET 10 OF 13

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JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

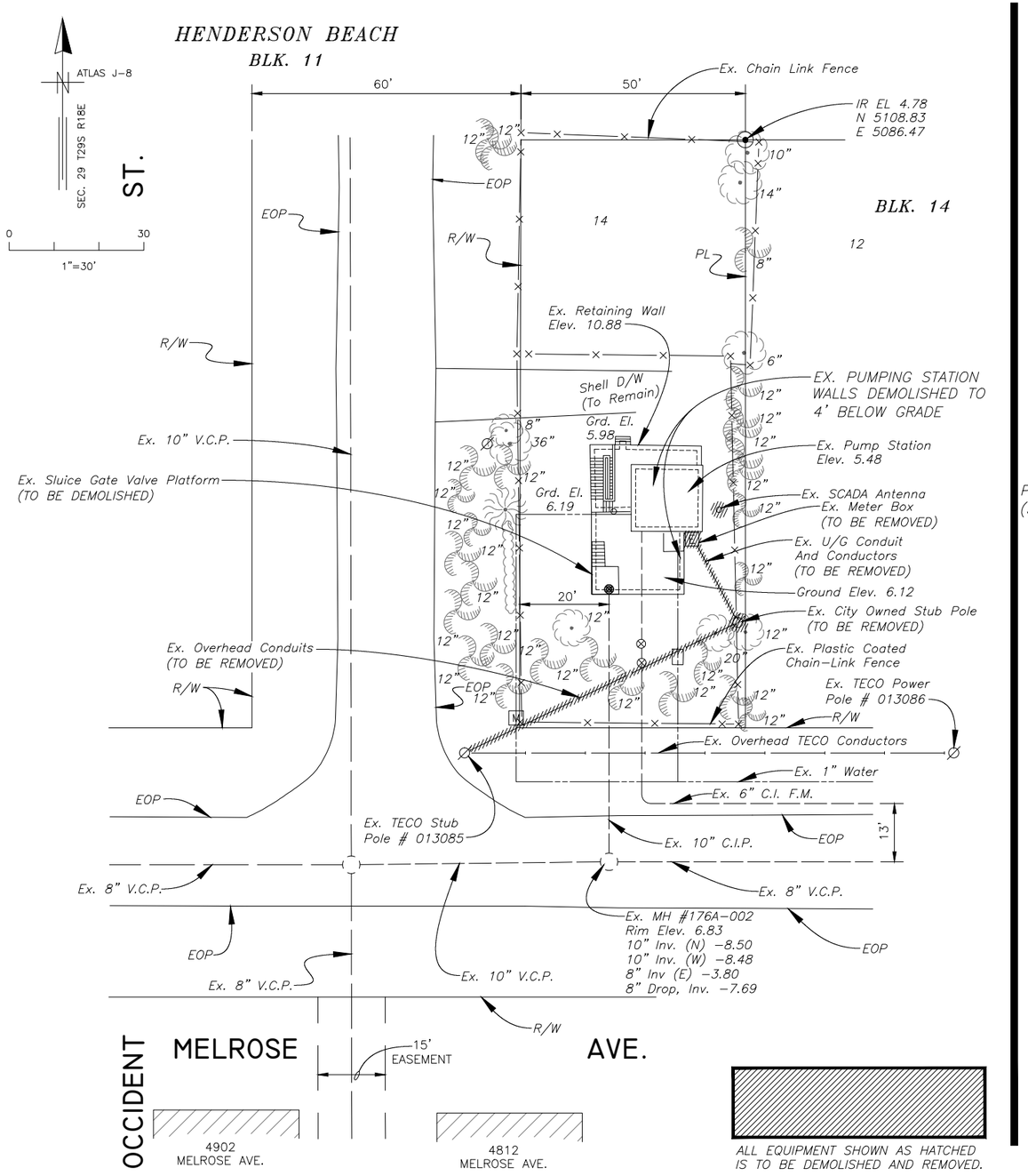
DES: CB
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
AS-BUILT RECORD DRAWING #108-10
FOR REFERENCE PURPOSES ONLY

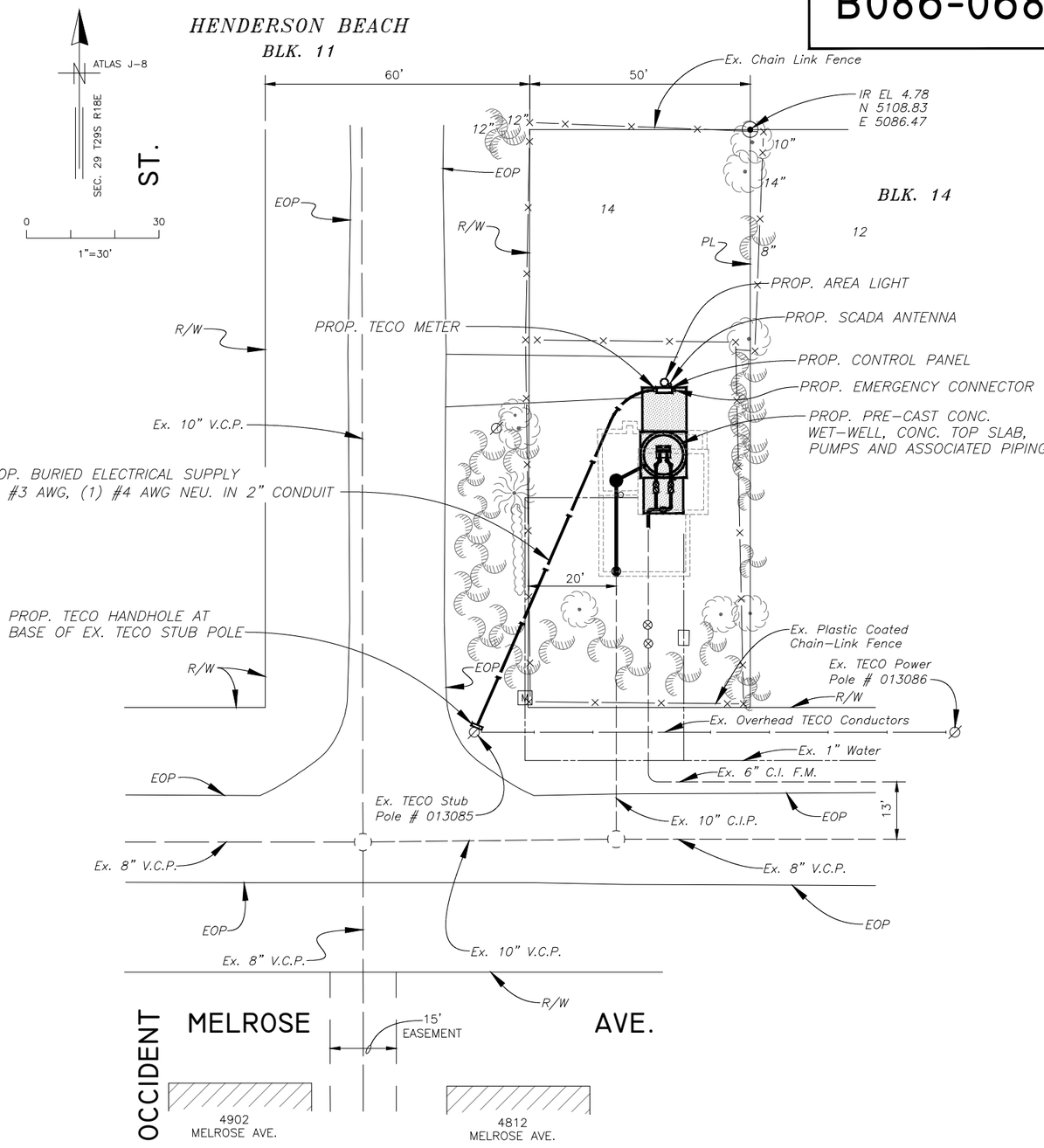
W.O.1000061
SHEET 18

B086-068



EXISTING ELECTRICAL DEMOLITION SITE PLAN

SCALE: 1" = 30'



PROPOSED ELECTRICAL SITE PLAN

SCALE: 1" = 30'

	No.	DATE	REVISIONS			
ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	3			DES: L.G. DRN: BB CKD: DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	MELROSE AVE. PUMPING STATION REPLACEMENT EXISTING DEMOLITION AND PROPOSED ELECTRICAL SITE PLANS	W.O. 5968 SHEET ESI
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B086-069

ONE LINE DIAGRAM SYMBOLS

600 A — BUS–RATING AS SHOWN

INCOMING LINE

OUTCOMING LINE

DISCONNECTING DEVICE

CONDUCTORS CONNECTED

CONDUCTORS NOT CONNECTED

100A — FUSE–RATING AS SHOWN

100A — SINGLE THROW DISCONNECT SWITCH–RATING AS SHOWN

100A/70A — FUSED DISCONNECT SWITCH–100A SWITCH, 70A FUSE

100A — LOW VOLTAGE AIR CIRCUIT BREAKER WITHOUT TRIP DEVICE 100A FRAME

225A/125A — LOW VOLTAGE AIR CIRCUIT BREAKER WITH 225A FRAME AND 125A TRIP

52 — MEDIUM VOLTAGE DRAWOUT TYPE AIR CIRCUIT BREAKER

GROUND CONNECTION

LIGHTNING OR SURGE ARRESTOR

SURGE CAPACITOR

POWER TRANSFORMER WITH WINDING CONNECTIONS INDICATED

CPT — CONTROL POWER TRANSFORMER

PT — POTENTIAL TRANFORMER

CT — CURRENT TRANSFORMER

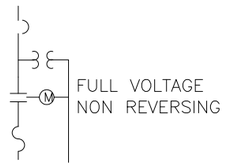
THERMAL OVERLOAD ELEMENT (OL)

5 — SQUIRREL CAGE MOTOR (INDICATE HORSEPOWER)

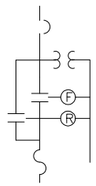
G — GENERATOR

R — INDICATING LIGHT (R–RED, G–GREEN, A–AMBER, B–BLUE, W–WHITE)

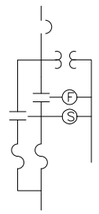
COMBINATION STARTER WITH CONTROL TRANSFORMERS AND OVERLOAD RELAYS AND MOTOR CIRCUIT PROTECTOR



FULL VOLTAGE NON REVERSING



FULL VOLTAGE REVERSING



FULL VOLTAGE TWO SPEED

SCHEMATIC AND WIRING DIAGRAM SYMBOLS

M — OPERATING COIL

M–MOTOR STARTER
C– CONTACTOR
F– FORWARD
R– REVERSE

AR– AUXILIARY RELAY
CR– CONTROL RELAY
TR– TIME DELAY RELAY

NORMALLY OPEN CONTACT (N.O.)

NORMALLY CLOSED CONTACT (N.C.)

NORMALLY OPEN CONTACT WITH TIME DELAY CLOSING (ON–DELAY)

INSTANT OPEN– TIME DELAY CLOSED CONTACT (OFF DELAY)

NORMALLY CLOSED CONTACT WITH TIME DELAY OPENING (ON–DELAY)

INSTANT CLOSE– TIME DELAY OPEN CONTACT (OFF DELAY)

R — INDICATING LIGHT– PUSH TO TEST (R–RED, G–GREEN, A–AMBER, B–BLUE, W–WHITE)

H A — 3–POSITION SELECTOR SWITCH (SHOWN IN "H" POS.)

NORMALLY OPEN PUSHBUTTON– MOMENTARY CONTACT

NORMALLY CLOSED PUSHBUTTON– MOMENTARY CONTACT

DOUBLE CIRCUIT PUSHBUTTON WITH SPRING RETURN TO NORMAL

TRANSFORMER

OL — OVERLOAD RELAY CONTACT

THERMAL OVERLOAD ELEMENT (OL)

ON–OFF SWITCH

G — GROUND BUS

N — NEUTRAL BUS (INSULATED)

SINGLE–POLE CIRCUIT BREAKER

NORMALLY OPEN N.O.	NORMALLY CLOSED N.C.	
		LIMIT SWITCH
		FLOAT SWITCH
		PRESSURE SWITCH
		FLOW SWITCH
		TEMPERATURE

NOTE:

THE SYMBOLS SHOWN COMPRISE A GENERAL LEGEND TO FACILITATE THE USE OF PLANS. REFER TO THE PLANS AND SPECIFICATIONS FOR ITEMS REQUIRED.

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: LRG
DRN: LRG
CKD: RDK
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
ELECTRICAL SYMBOLS LENGEND SHT-I

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POWER AND LIGHTING SYMBOLS

B086-070

EXPOSED CONDUIT RUN

CONDUIT RUN CONCEALED IN FLOOR OR UNDERGROUND

CONDUIT RUN CONCEALED IN WALLS, ABOVE SUSPENDED CEILING, OR IN ROOF SLAB

CONDUIT WITH HOT, NEUTRAL AND GROUND WIRES (LONG LINE IS NEUTRAL; LONG LINE WITH DOTS DENOTE GROUND)

PNL–1 1,3,5 — HOMERUN TO LIGHTING PANELBOARD (PNL–1 INDICATES PANELBOARD AND 1, 3, 5 INDICATES 20A–1P CKTS. 1, 3 AND 5)

FLEXIBLE LIQUIDTIGHT CONDUIT

CONDUIT–UP (OR TOWARDS VIEWER)

CONDUIT–DOWN (OR AWAY FROM VIEWER)

G — GROUNDING CONDUCTOR

GROUND ROD

LIGHTNING ROD

CEILING MOUNTED INCANDESCENT OR MERCURY VAPOR FIXTURE. "A" INDICATES FIXTURE TYPE LISTED IN SCHEDULE

WALL MOUNTED LIGHTING FIXTURE

EXIT SIGN

EMERGENCY INCANDESCENT OR MERCURY VAPOR LIGHTING FIXTURE

FLUORESCENT FIXTURE

EMERGENCY FLUORESCENT FIXTURE

POLE MOUNTED LIGHTING FIXTURE

4 — DUPLEX RECEPTACLE– 20 A, 120 V, 3 WIRE (TO PNL– CIRCUIT No.4)

30 A — SINGLE RECEPTACLE – 2 POLE, 3 WIRE, 240V, RATING NOTED

60 A — 3 POLE, 4 WIRE, 240V WELDING OUTLET (60 A)

SINGLE POLE SWITCH

2P — TWO POLE SWITCH

3 — THREE WAY SWITCH

J — OUTLET BOX WITH BLANK COVER

JB — JUNCTION BOX

PB — PULL BOX

TB — TERMINAL BOX

GENERAL SYMBOLS

START–STOP PUSHBUTTON

ON/OFF/L — ON–OFF MAINTAINED CONTACT PUSHBUTTON WITH LOCK ATTACHMENT

S/L — INDICATING LIGHT AND START–STOP PUSHBUTTON WITH LOCK ATTACHMENT ON STOP

RESUME STOP/L — PUSH/PULL BUTTON WITH STOP LOCK. (PULL TO RESUME– PUSH TO STOP)

SELECTOR SWITCH ("HOA" INDICATES HAND, OFF, AND AUTO; "MOR" INDICATES MANUAL, OFF, AND REMOTE; ETC)

I L — ON–OFF SWITCH WITH LOCK ATTACHMENT ON OFF POSITION

(FL) FLOW SWITCH

(LS) LIMIT SWITCH

(P) PRESSURE SWITCH

(S) SOLENOID OPERATED VALVE

(T) TEMPERATURE SWITCH

(F) FLOAT SWITCH

[L] LEVEL TRANSMITTER (PRESSURE ANALOG TYPE)

[LC] LEVEL TRANSMITTER (FLOAT TYPE)

[T] TEMPERATURE TRANSMITTER

[FT] FLOW TRANSMITTER

MH — DESIGNATES MOUNTING HEIGHT

WP — DESIGNATES WATERPROOF EQUIPMENT

XP — DESIGNATES EXPLOSIONPROOF EQUIPMENT

MOV — DESIGNATES MOTOR OPERATED VALVE

EX. — DESIGNATES EXISTING EQUIPMENT

PROP. — DESIGNATES PROPOSED EQUIPMENT

NOTE:
THE SYMBOLS SHOWN COMPRISE A GENERAL LEGEND TO FACILITATE THE USE OF PLANS. REFER TO THE PLANS AND SPECIFICATIONS FOR ITEMS REQUIRED.

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: LRG
DRN: LRG
CKD: RDK
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
ELECTRICAL SYMBOLS LENGEND SHT-2

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SHEET
EG2

B086-071

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT OR COMMENCING IN CONSTRUCTION.
2. ALL CONDUCTORS SHALL BE STRANDED COPPER, #12 AWG MIN. W/THWN INSULATION, UNLESS OTHERWISE NOTED.
3. ALL WIRING SHALL BE IDENTIFIED W/NUMBERS AT ALL TERMINALS AND ON WIRING DIAGRAMS.
4. VERIFY ALL MECHANICAL EQUIPMENT SIZES AND RATING PRIOR TO CONNECTING.
5. FIELD VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTIONS PRIOR TO COMMENCING CONSTRUCTION.
6. ALL ELECTRICAL WORK SHALL BE PREFORMED IN ACCORDANCE W/ THE LATEST EDITION OF THE NEC AND ALL APPLICABLE LOCAL ORDINANCES.
7. ALL THREADED CONNECTIONS SHALL BE COATED W/ COPPER SHIELD ANTI-SEIZE COMPOUND MANUFACTURED BY THOMAS & BETTS (T & B) OR EQUAL.
8. ALL PANELS, DISCONNECTS, SWITCHES, AND EQUIPMENT COVERPLATES SHALL BE LABELED W/ NAMEPLATES. NAMEPLATES SHALL BE THREE-PLY PHENOLIC BLACK-WHITE-BLACK ENGRAVED THROUGH THE FIRST BLACK LAYER. LETTERING SHALL BE 0.5 CM (3/16") MIN. EDGE OF NAMEPLATE SHALL BE BEVELED 45 DEG.
9. ALL CONDUIT SHALL BE SUPPORTED AT MAXIMUM 5'-0" INTERVALS.
10. ALL CIRCUITS SHALL HAVE A PROPERLY SIZED GROUNDING CONDUCTOR ROUTED INSIDE EACH CONDUIT W/ POWER CONDUCTORS.
11. ALL CONDUCTOR LENGTHS SHALL BE CONTINUOUS, NO SPLICES OR CONDUCTOR TERMINATIONS SHALL BE PERMITTED UNLESS SPECIFICALLY DESIGNATED IN THE DRAWINGS.
12. NEATLY COIL ALL SPARE CONDUCTORS & TAPE W/ VINYL ELECTRICAL TAPE (SCOTCH 33+).
13. PROVIDE A MINIMUM OF 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT IN ACCORDANCE W/ ARTICLE 110 OF THE NEC.
14. ALL FASTENING HARDWARE (SCREW, BOLTS, NUTS, ETC.) SHALL BE 316-STAINLESS STEEL. FASTENING HARDWARE CONSTRUCTED OF FERROUS MATERIAL ARE NOT ACCEPTABLE.
15. EXPOSED CONDUITS SHALL BE NON-COATED RIGID ALUMINUM CONDUIT, UNLESS OTHERWISE NOTED (UON). INSTALL PVC COATED RIGID ALUMINUM CONDUIT IN THE WET WELL.
16. DIRECT BURIED AND CONCRETE ENCASED CONDUIT SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED, WITH A TRANSITION TO RIGID ALUMINUM IN THE VERTICAL RUN AT LEAST ONE FOOT PRIOR TO EMERGENCE. ALL ALUMINUM SURFACES IN CONTACT WITH SOIL, CONCRETE, AND OTHER INCOMPATIBLE MATERIALS SHALL BE COATED WITH TWO COATS OF BITUMASTIC OR OTHER APPROVED INSULATING MATERIAL.
17. ALUMINUM WATERTIGHT HUBS (MYERS HUBS) SHALL BE USED FOR CONNECTIONS TO CONTROL BOXES, ETC. MOUNTED OUTDOORS, BELOW GRADE, OR IN WASHDOWN AREAS. ALUMINUM DOUBLE-LOCKNUTS AND BUSHINGS MAY BE USED ELSEWHERE.
18. A 316-STAINLESS STEEL CHANNEL ERECTOR SYSTEM SHALL BE USED TO SUPPORT ALL CONDUITS, BOXES, ETC. USE 316-STAINLESS STEEL MOUNTING HARDWARE.
19. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO EXECUTE THE PROPOSED INSTALLATIONS.
20. ALL EXISTING INSTALLATIONS DENOTED ON THE DRAWINGS ARE FOR THE CONTRACTOR'S REFERENCE ONLY. ALL EXISTING INSTALLATIONS SHALL BE FIELD VERIFIED PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING CONSTRUCTION.
21. PULL BOXES SHALL BE INSTALLED AS NECESSARY TO FACILITATE WIRE PULLS AND TO AVOID EXCESSIVE PULLING TENSION ON WIRING. IN NO CASE SHALL CONDUIT LENGTHS EXCEED 150' OR THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) WITHOUT A PULL BOX. PULL BOXES SHALL BE SIZED IN ACCORDANCE WITH ARTICLE 314 OF THE NEC.

SCOPE OF WORK

1. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH TAMPA ELECTRIC COMPANY (TEC). THE CITY WILL MAKE PRELIMINARY ARRANGEMENTS WITH TEC AND COMPENSATE THE UTILITY DIRECTLY FOR ANY CONTRIBUTION IN AID OF CONSTRUCTION (CIAC) REQUIRED FOR TEC TO INSTALL A HAND HOLE AT THE BASE OF THE EXISTING TECO OWNED STUB POLE. THE SERVICE VOLTAGE TO THIS FACILITY SHALL REMAIN, 120/240 VAC, 3-PHASE, 4-WIRE, DELTA. THE FOLLOWING EQUIPMENT SHALL BE PROVIDED AND INSTALLED: ELECTRICAL METER SOCKET, LIGHTNING ARRESTOR, AND GROUNDING AS SHOWN ON PLANS. PROVIDE AND INSTALL UNDERGROUND CONDUIT/CONDUCTORS EXTENDING FROM THE PROPOSED TEC HAND HOLE TO THE PROPOSED METER.
2. PROVIDE AND INSTALL A PRESTRESSED CONCRETE POLE WITH LED OUTDOOR SECURITY FIXTURE AND SWITCH, AS SHOWN ON PLANS.
3. DISCONNECT AND REMOVE THE EXISTING POWER CONTROL CENTER (PCC), MOTORS, LIGHTING AND VENTILATION EQUIPMENT MOUNTED INSIDE THE EXISTING PUMP STATION.
4. CAREFULLY REMOVE THE EXISTING DCR SCADA RTU CABINET MOUNTED INSIDE THE PUMP STATION. DELIVER THIS RTU PACKAGE TO THE CITY FOR MAINTENANCE INVENTORY.
5. ANY SALVAGEABLE MATERIALS, AS DETERMINED BY THE ENGINEER, SHALL BE DELIVERED, BY THE CONTRACTOR, TO THE HOWARD F. CURREN AWT. PLANT. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL OTHER REMOVED EQUIPMENT.
6. PREPARE THE SITE FOR THE INSTALLATION OF THE PROPOSED PUMP CONTROLS/ SCADA/RADIO (PCSR) ENCLOSURE.
7. PROVIDE AN INSTALL A NEW DUPLEX PUMP CONTROL PANEL. THE CONTROL PANEL SHALL CONTAIN CONTROL COMPONENTS, INDICATOR LIGHTS, CIRCUIT BREAKERS, AND MOTOR STARTERS AS SHOWN ON THE PLANS AND DETAILED IN THE SPECIFICATIONS.
8. PROVIDE AND INSTALL A NEW GALVANIZED STEEL SCADA ANTENNA/MAST AS SHOWN OR REQUIRED. THE CONTRACTOR SHALL PROVIDE DRAWINGS FOR THE MAST THAT ARE SIGNED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
9. CALIBRATE AND ADJUST SETPOINTS AND ALL SENSING DEVICES, ALARM DEVICES, AND TIMERS. CALIBRATIONS AND SETPOINTS SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
10. PROVIDE AND INSTALL ALL NECESSARY CONDUITS AND CONDUCTORS AS SHOWN, SPECIFIED AND REQUIRED.
11. FURNISH AND INSTALL A JUNCTION BOX CONSTRUCTED OF SHEET ALUMINUM WITH LOUVERED OPENINGS ON A CONCRETE PEDESTAL, AS SHOWN ON THE PLANS.
12. PROVIDE FOR PROPER GROUNDING AS SHOWN, SPECIFIED, AND REQUIRED.
13. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE ADOPTED BY THE STATE OF FLORIDA AND CHAPTER 5 OF THE CITY OF TAMPA CODE.

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: LRG
DRN: LRG
CKD: RDK
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

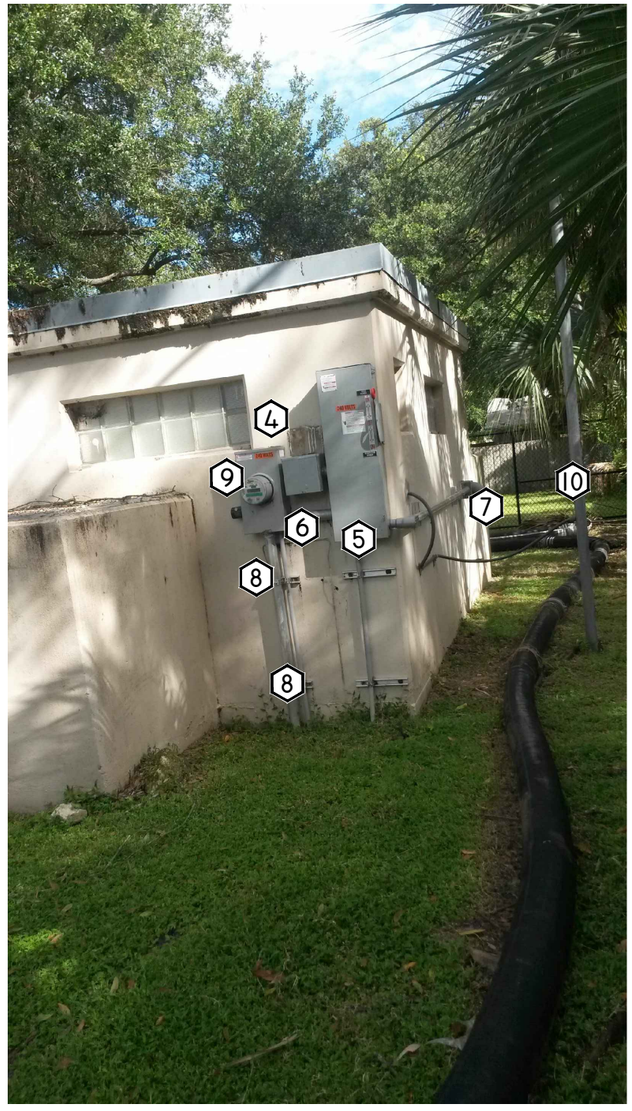
MELROSE AVENUE PUMPING STATION
REPLACEMENT
GENERAL NOTES AND SCOPE OF ELECTRICAL WORK

W.O.1000061
SHEET
EG3

B086-072

FROM CORNER OF MELROSE AVE. AND OCCIDENT ST., LOOKING NORTHEAST

NOT TO SCALE



LOOKING NORTH, AT PUMPING STATION

FROM THE PROPERTY LINE

NOT TO SCALE

KEYED NOTES:

1. EX. TECO POWER POLE #013086 (TO REMAIN)
2. EX. TECO STUB POLE #013085 (TO REMAIN)
3. EX. CITY OWNED STUB POLE
4. EX. MELROSE PUMP STATION (TO BE DEMOLISHED DOWN TO 4' BELOW GRADE)
5. EX. DOUBLE THROW DISCONNECT SWITCH(SEE NOTE)
6. EX. SURGE PROTECTIVE DEVICE
7. EX. EMERGENCY CONNECTOR
8. EX. U/G CONDUIT AND CONDUCTORS TO EXISTING TECO STUB POLE
9. EX. TECO METER
10. EX. SCADA ANTENNA

NOTE:

ALL ITEMS SHOWN SHALL BE REMOVED AND PROPERLY DISPOSED OF UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL SALVAGE THE DOUBLE-THROW DISCONNECT SWITCH AND DELIVER TO THE HOWARD F. CURREN AWT PLANT.

EXISTING DEMOLITION EQUIPMENT IDENTIFICATION PLAN

NOT TO SCALE

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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1		

DES: L.G.
DRN: BB
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVE. PUMPING STATION
REPLACEMENT
ELECTRICAL DEMOLITION EQUIPMENT IDENTIFICATION

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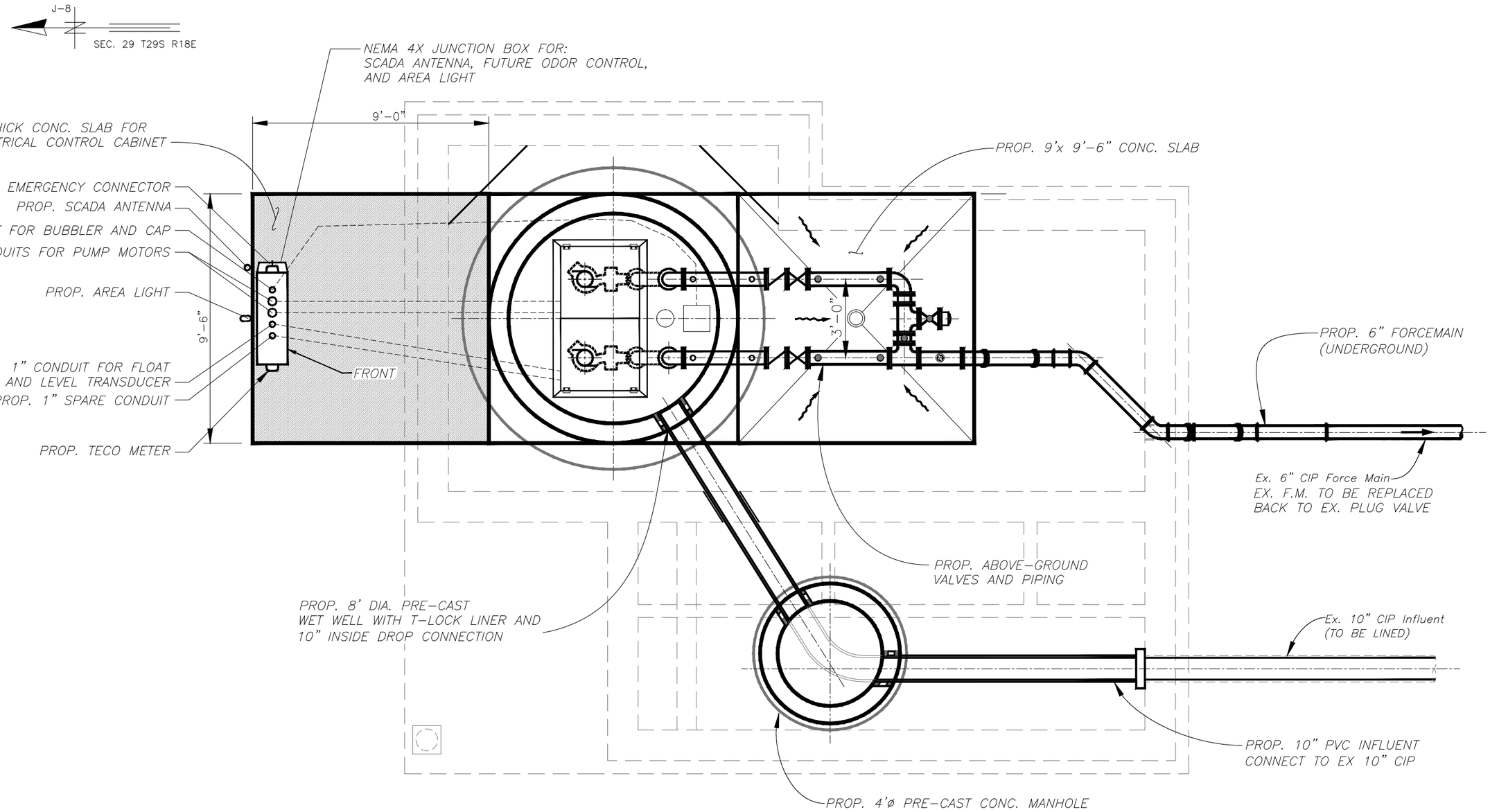

PROPOSED PUMPING STATION CONTROL CABINET
PLAN VIEW

SCALE: ¼" = 1'-0"

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: CB
DRN: BB
CKD:
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CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
PROPOSED P.S. ELECTRICAL CONTROL CABINET
PLAN VIEW

W.O. 5968
SHEET
E1

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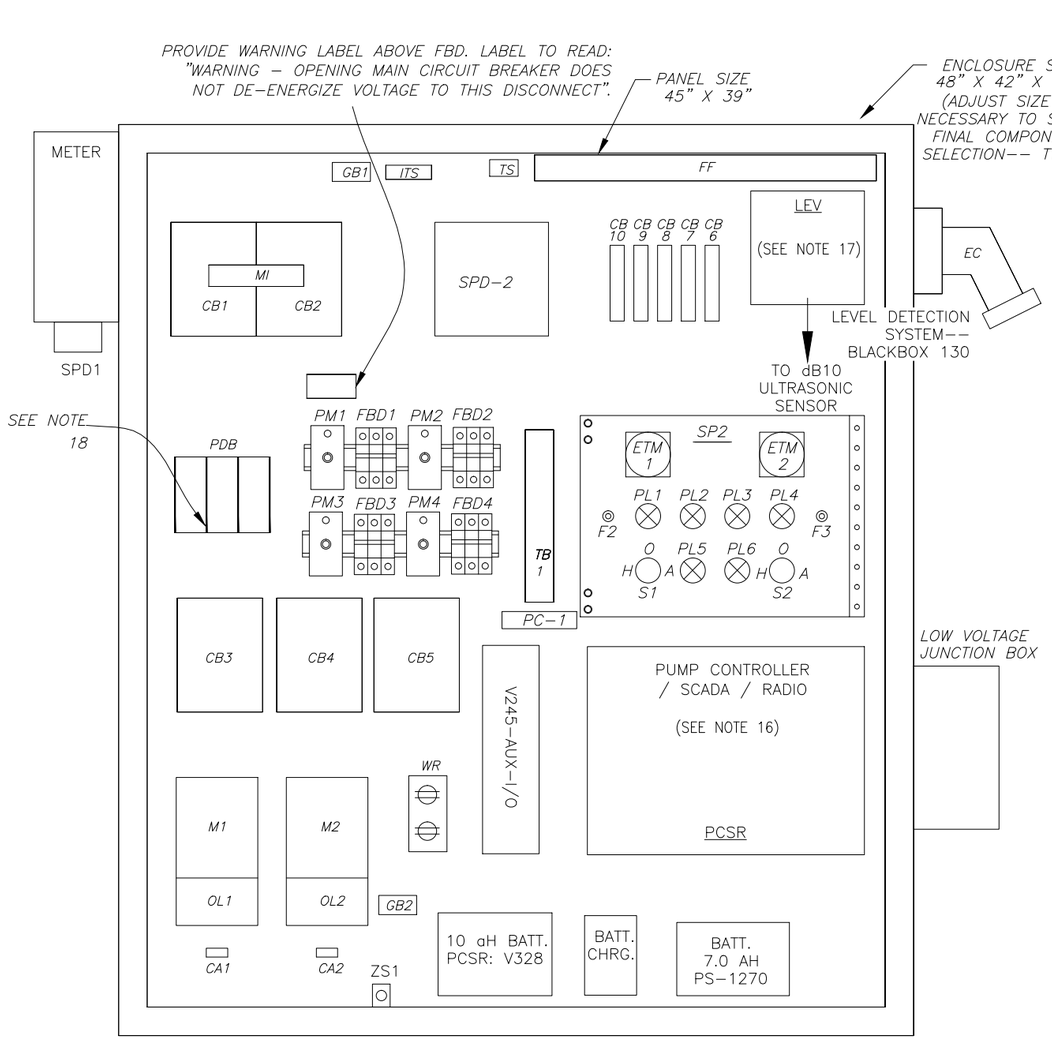
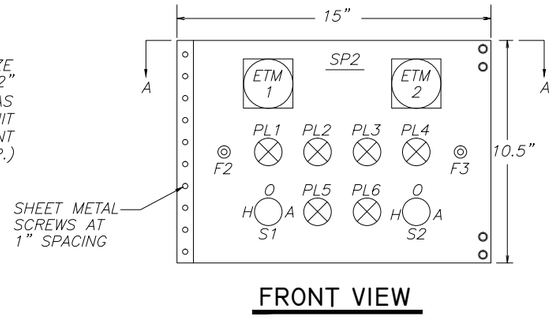
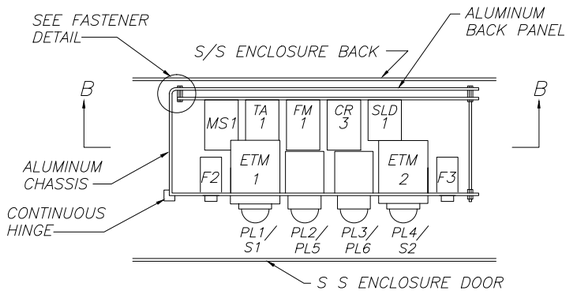


CONTROL PANEL ENCLOSURE* - FRONT VIEW

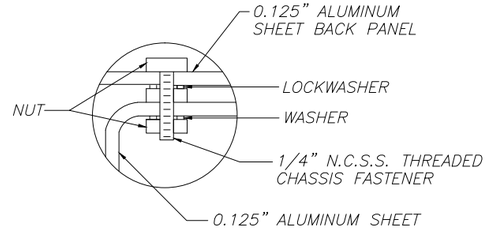
SCALE: 1/8"=1"



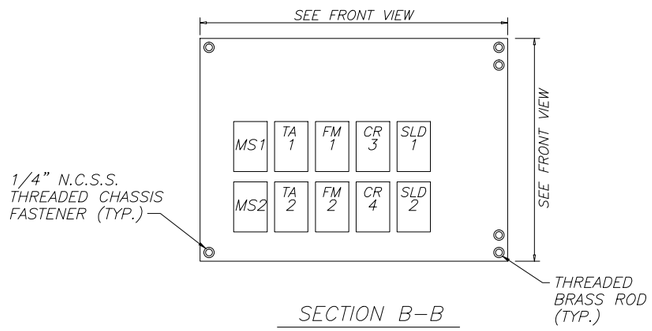
FRONT VIEW



SECTION A-A



FASTENER DETAIL



SECTION B–B

CONTROL CHASSIS LAYOUT

SEE NOTES ON SHEET E8

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ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	MELROSE AVENUE PUMPING STATION REPLACEMENT PROPOSED ELECTRICAL CONTROL PANEL LAYOUT	W.O. 5968 SHEET E2
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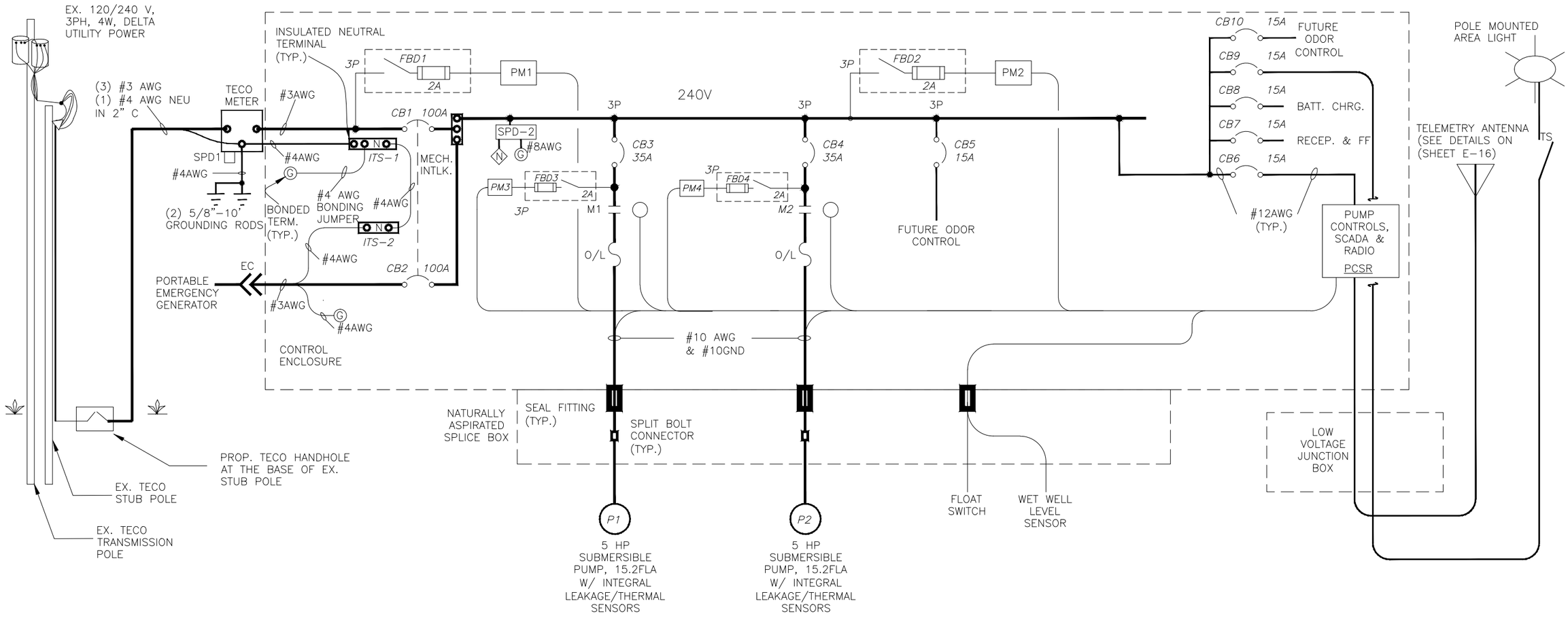


LOAD SUMMARY

240 VAC, 3ø, 4W

LOAD	CONNECTED	DEMAND	APPROX. PHASE CURRENTS L1	L2	L3
PUMP #1	6.3 KVA	6.3 KVA	15.2 A	15.2 A	15.2 A
PUMP #2	6.3 KVA	6.3 KVA	15.2 A	15.2 A	15.2 A
CONTROLS	2.0 KVA	2.0 KVA	8.3 A	0 A	8.3 A
ODOR CONTROL (FUT.)	0.7 KVA	0.7 KVA	1.7 A	1.7 A	1.7 A
TOTAL	15.3 KVA	15.3 KVA	66.0 A	57.7 A	66.0 A

ONE LINE DIAGRAM

NOT TO SCALE

AVAILABLE FAULT CURRENT AT TRANSFORMER LUGS FOR ANTICIPATED 30KVA TRANSFORMER BANK (2%Z) IS 3608A; CB1 AIC RATING – 25,000A SYMMETRICAL.

SEE NOTES ON SHEET E8

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

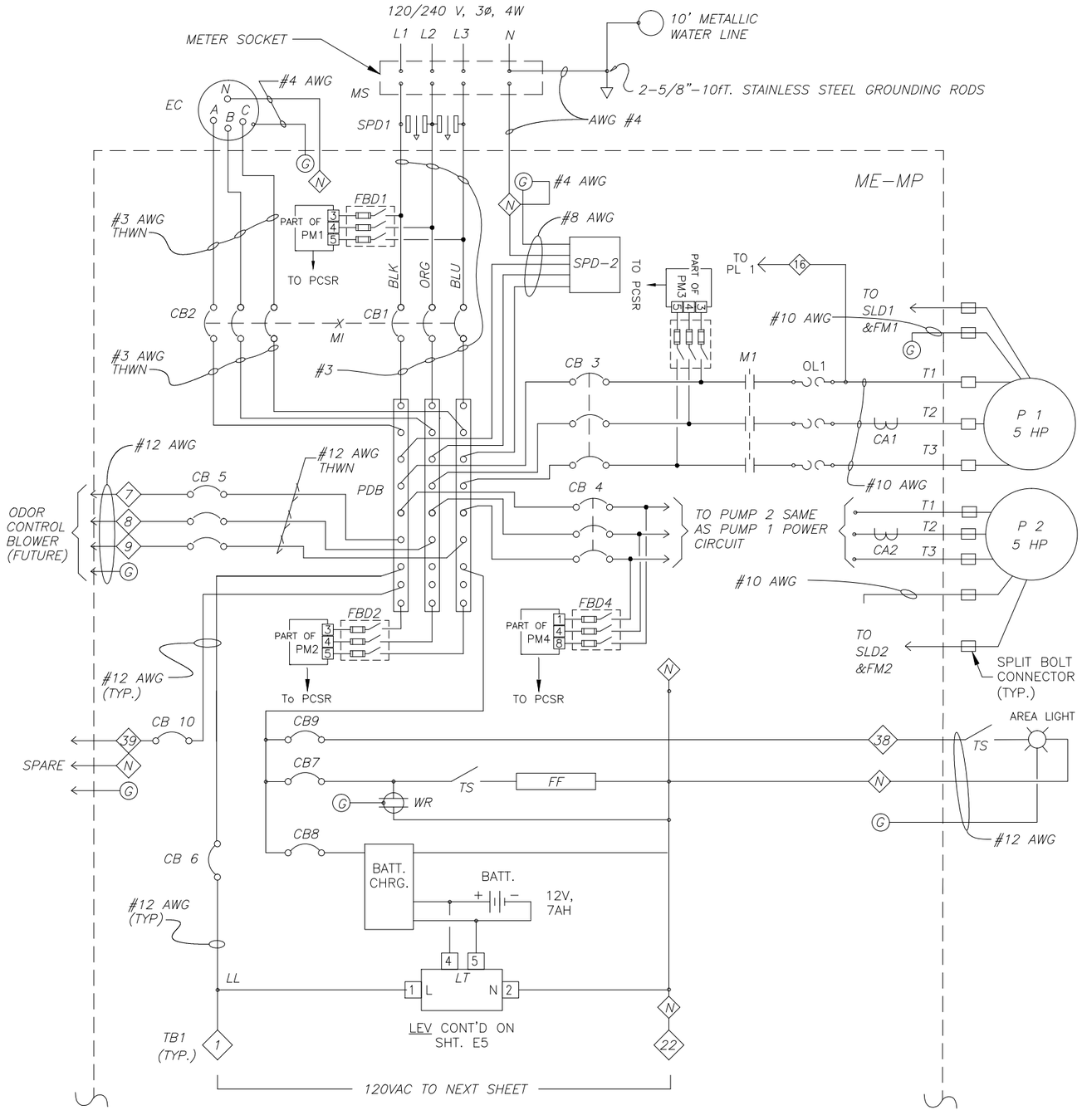
DES: LRG
DRN: LRG
CKD: RDK
DATE:

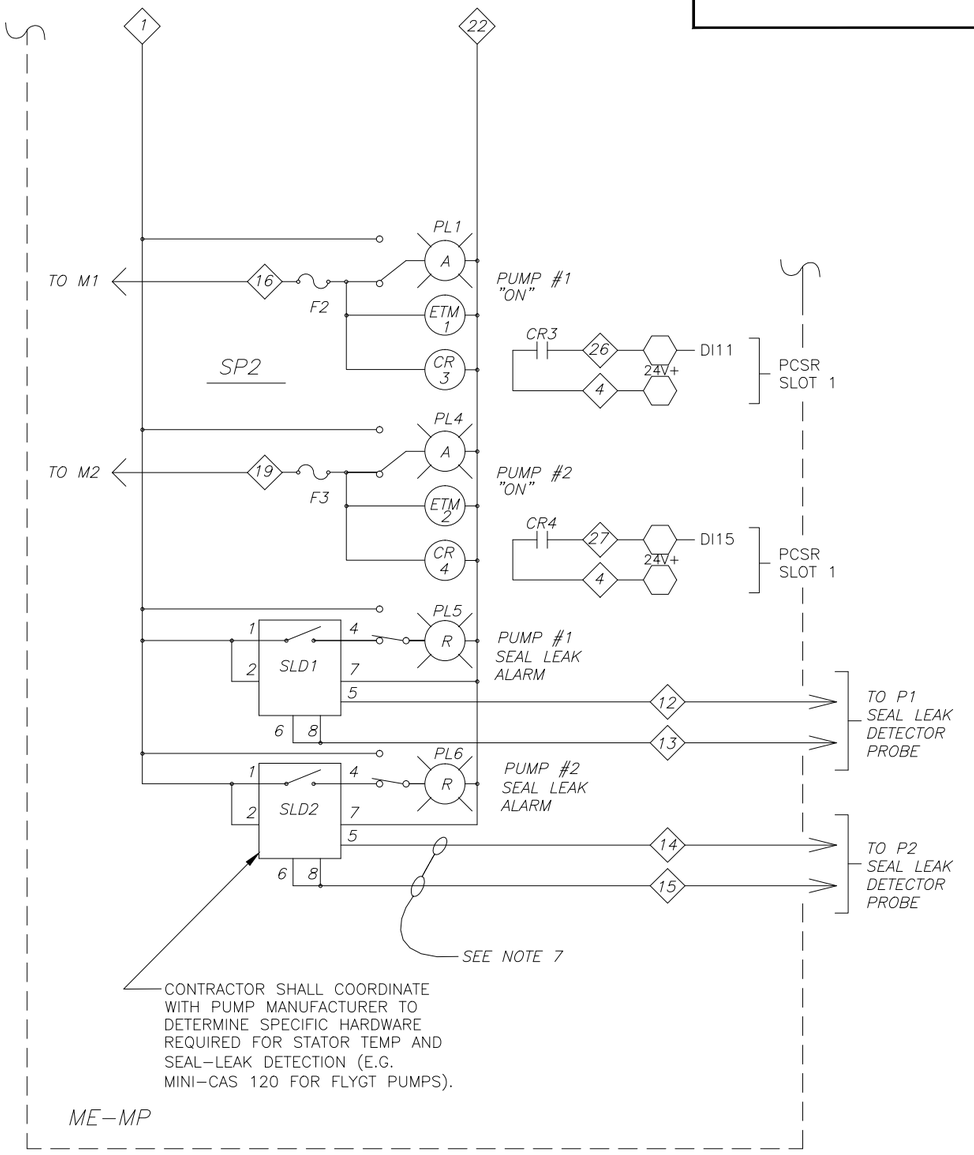
CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION
REPLACEMENT
ONE LINE DIAGRAM

W.O. 5968
SHEET
E3

B086-076





SEE NOTES ON SHEET E8

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ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	MELROSE AVENUE PUMPING STATION REPLACEMENT ELECTRICAL SCHEMATIC DIAGRAM (1 OF 3)	W.O. 5968 SHEET E4
	3						
	2						
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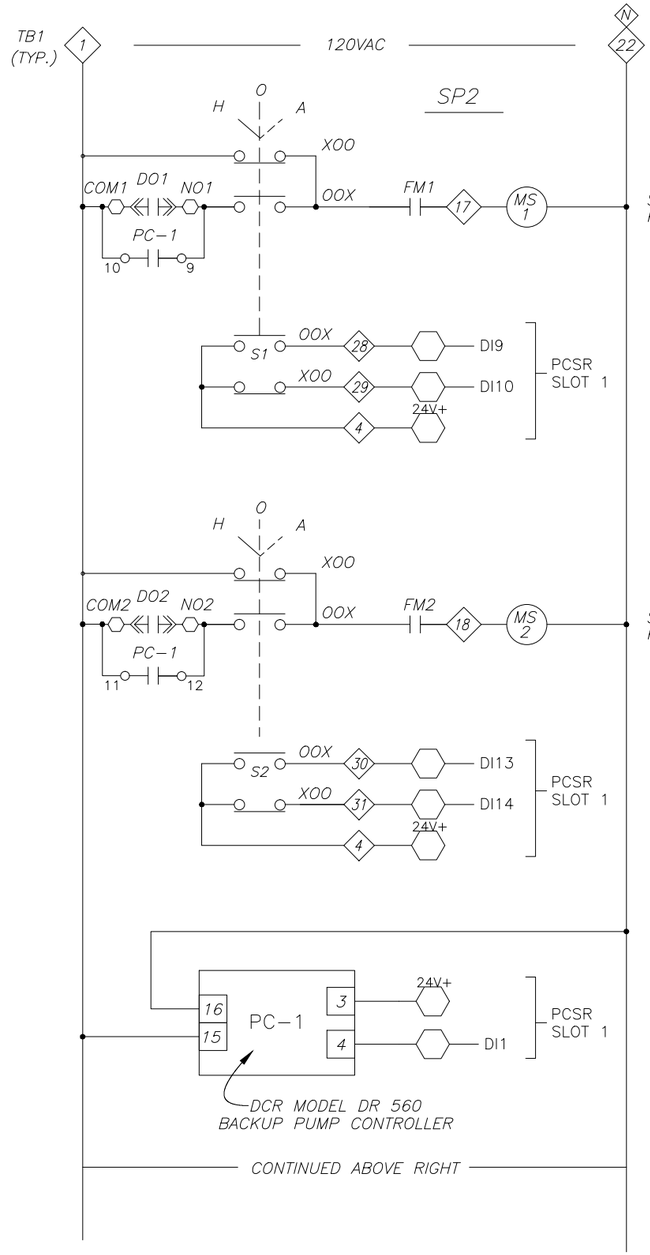
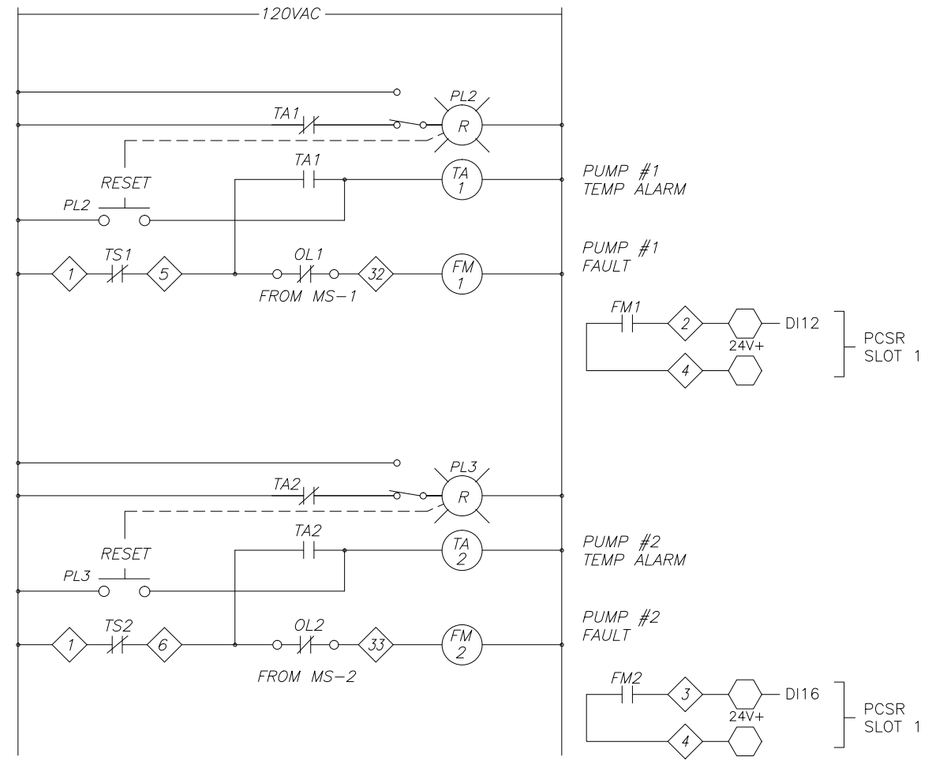
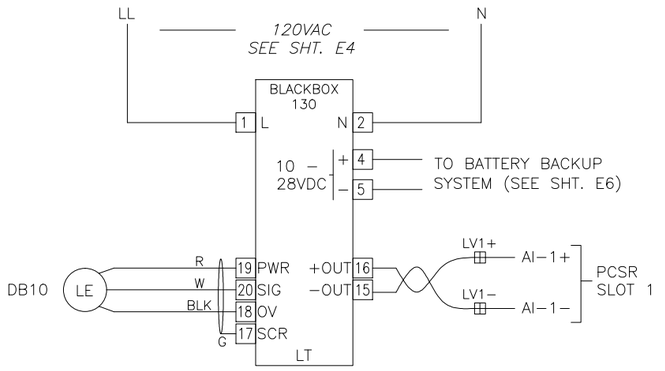
B086-077







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SEE NOTES ON SHEET E8

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	MELROSE AVENUE PUMPING STATION REPLACEMENT ELECTRICAL SCHEMATIC DIAGRAM (2 OF 3)	W.O. 5968 SHEET E5
	3						
	2						
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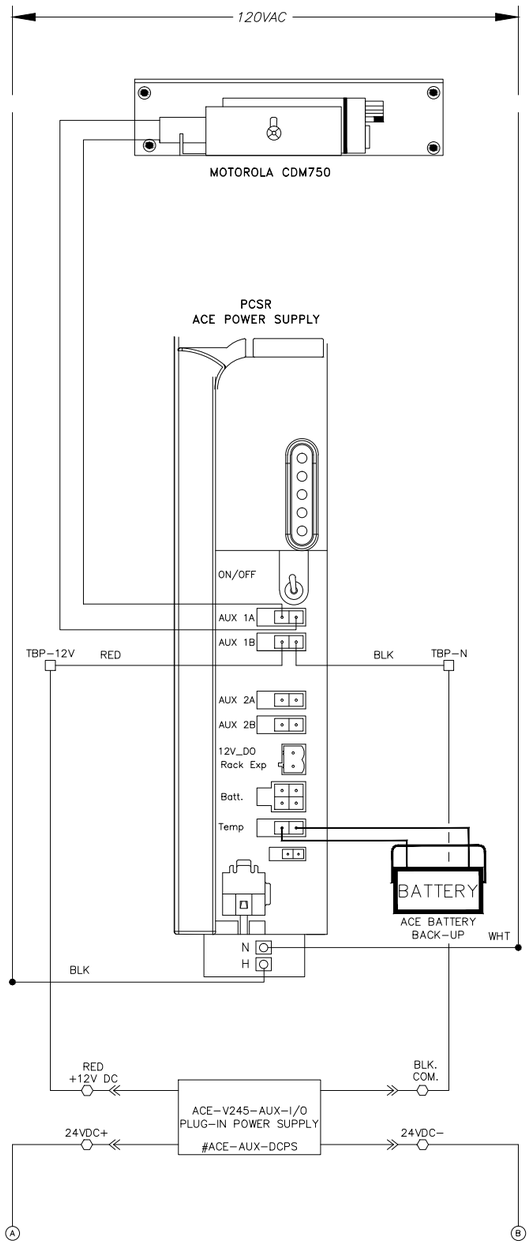

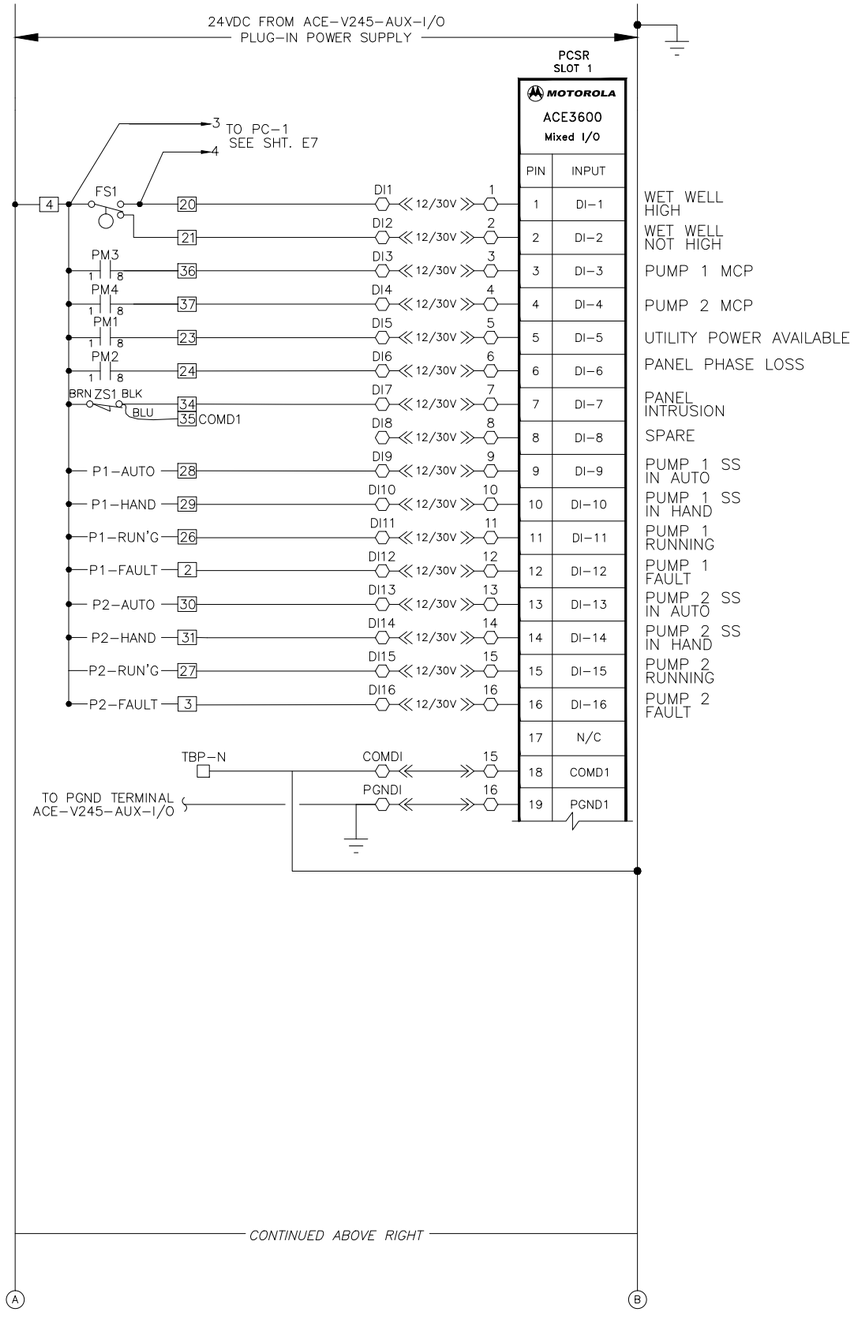

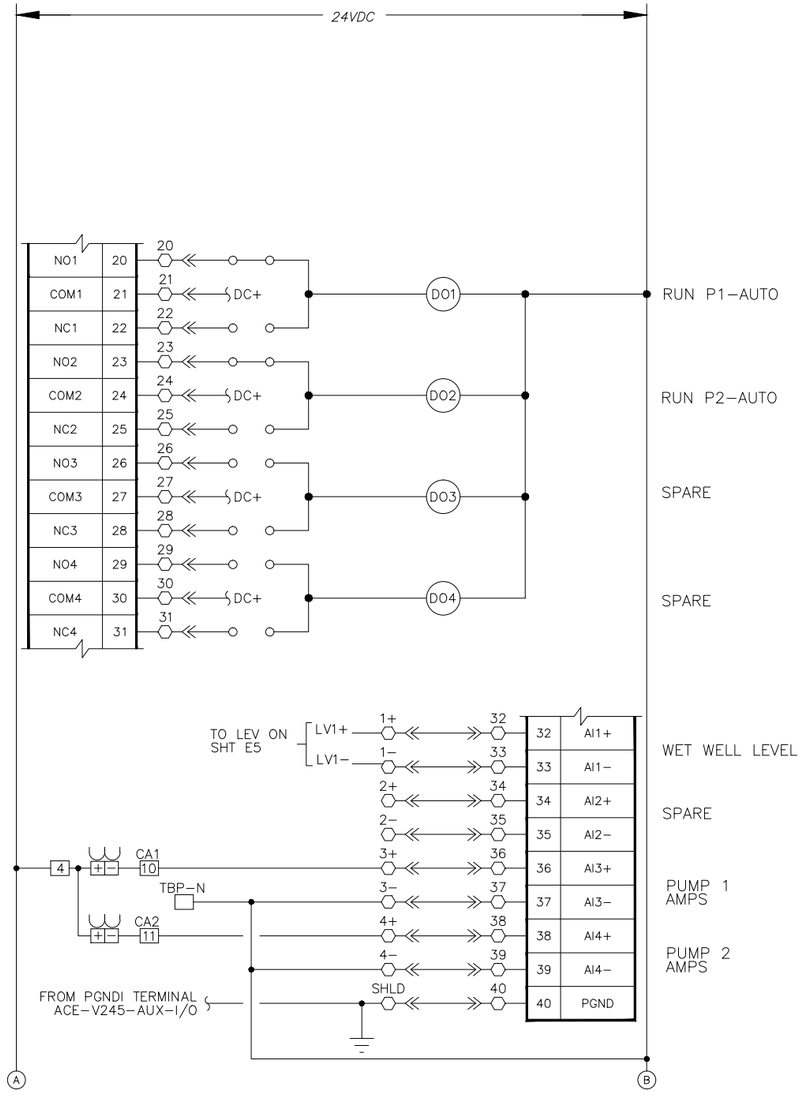

SEE NOTES ON SHEET E8

○ TERMINALS ON ACE I/O MODULE (GENERAL)

□ TERMINALS IN PUMP CONTROL PANEL

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: LRG
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DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION
REPLACEMENT
ELECTRICAL SCHEMATIC DIAGRAM (3 OF 3)

W.O. 5968
SHEET
E6

B086-079

TBI- (◇) MOUNTED ON MAIN PANEL (MP)

TERM.	DESCRIPTION
1	CB 6 OUT PUMPS CONTROL POWER
2	PUMP 1 FAULT CONTROL INTERLOCK
3	PUMP 2 FAULT CONTROL INTERLOCK
4	PCSR 24V+
5	STATOR TEMP SWITCH FROM P1
6	STATOR TEMP SWITCH FROM P2
7	ODOR CONTROL BLOWER (FUTURE)
8	
9	
10	
11	
12	P1 SEAL LEAK PROBE
13	
14	P2 SEAL LEAK PROBE
15	
16	P1 "ON" DISC.
17	MS-1 "RUN" CMD
18	MS-2 "RUN" CMD
19	P2 "ON" DISC.
20	WET WELL HIGH
21	WET WELL NOT HIGH
22	NEUTRAL

TB1 CONT'D

23	UTIL. POWER AVAILABLE
24	PANEL PHASE LOSS
25	SPARE
26	P1 "ON" TO PCSR
27	P2 "ON" TO PCSR
28	P1 "AUTO" TO PCSR
29	P1 "HAND" TO PCSR
30	P2 "AUTO" TO PCSR
31	P2 "HAND" TO PCSR
32	M1 OVERLOAD
33	M2 OVERLOAD
34	PANEL INTRUSION
35	
36	PUMP 1 MCP STATUS
37	PUMP 2 MCP STATUS
38	AREA LIGHT
39	SPARE BREAKER
40	SPARE
41	
42	

X-Y TB2 TERM STRIP MTD ON MP-- (PCSR INTERFACE)

TERMINAL STRIP IN PCSR

CONTROL SCHEMATIC SYMBOLS

TRANSFORMER

PUSH BOTTOM

115 V, 60 Hz, DUPLEX RECEPTACLE

SWITCH

CONNECTED

OVERLOAD HEATER COIL

COIL
- TD – TIME DELAY RELAY
- CR – CONTROL RELAY
- ETI – TIMEMETER
- M – MOTOR STARTER

PILOT LIGHT – RED (PRESS-TO-TEST)

PRESSURE LEVEL SWITCH CONTACT

AIR LINE

CIRCUIT BREAKER (SINGLE-POLE)

CIRCUIT BREAKER (THREE-POLE)

CONTACT NORMALLY OPEN (CLOSED)

SPLIT BOLT SPLICE

NOT CONNECTED

GROUND BUS

NEUTRAL BUS (INSULATED)

FUSE

"ON DELAY" CONTACT

INSTANT CLOSE CONTACT

MELROSE PUMPING STATION REHABILITATION
ELECTRICAL SCHEMATIC LEGEND

SEE NOTES ON SHEET E8

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
ELECTRICAL SCHEMATIC LEGEND

W.O. 5968
SHEET E7

B086-080

NOTES

1. TECO SERVICE: 120/240V, 3ϕ, 4W, DELTA CALCULATED FAULT CURRENT– 3608A, CB1 AIC RATING – 25,000A SYMMETRICAL.
2. THE WET WELL CLASSIFICATION IS CLASS I, DIVISION 2, GROUP D, (HAZARDOUS AREA) NEC, CHAPTER 5 IS APPLICABLE FOR INTERFACING WET WELL AND THE CONTROL ENCLOSURE.
3. ALL ELECTRICAL WORK SHALL BE PERFORMED WITHIN LATEST EDITION OF THE NEC ADOPTED BY THE STATE OF FLORIDA AND CITY OF TAMPA/HILLSBOROUGH COUNTY CODES AND SHALL BE INSPECTED BY CITY OF TAMPA/HILLSBOROUGH COUNTY ELECTRICAL INSPECTORS AS APPLICABLE.
4. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED AND AS SPECIFIED, OR AS APPROVED BY THE ENGINEER. THE PANEL BUILDER SHALL BE UL–508A CERTIFIED AND A UL LABEL SHALL BE ATTACHED TO THE INSIDE OF THE ENCLOSURE. ALSO, LABEL THE PANEL––"SUITABLE FOR USE AS SERVICE EQUIPMENT".
5. THE ENCLOSURE SHALL BE NEMA 3, SHALL BE CONSTRUCTED OF MINIMUM 14 GAUGE 304 S.S. SHALL HAVE RAL 9003 WHITE POWDER COAT SURFACE, AND THE CLOSING SURFACE SHALL HAVE ROLLED LIPS. PROVIDE HINGED DOOR WITH 3–POINT LATCH AND LOCKABLE HANDLE. REFERENCE PART SCHEDULE.
6. ALL COMPONENTS TO BE MOUNTED ON PANEL USING TAPPED HOLES.
7. ALL WIRING SHALL BE COPPER. ALL CONTROL WIRING SHALL BE STRANDED THWN COPPER, MINIMUM AWG #14, AND SHALL HAVE SPADE LUG TERMINATIONS.
8. ALARM FLOAT SWITCH WILL BE SUPPLIED BY THE CITY BUT INSTALLED BY CONTRACTOR.
9. DIMENSIONS, ITEMS, OR ELEVATIONS MARKER '*' TO BE DETERMINED AFTER EQUIPMENT SELECTION.
10. ALL MECHANICAL CONNECTORS SHALL BE TORQUED PER NEC, UL OR MANUFACTURERS SPECIFICATIONS.
11. INSTALL LAMINATED SCHEMATIC AND LAMINATED DATA SHEET ON BACK FACE OF THE DOOR INSIDE THE ENCLOSURE.
12. ENSURE THAT THE LINE CONNECTIONS TO METER SOCKET PROVIDE CORRECT ROTATION.
13. ROUTE AND SECURE SERVICE ENTRANCE CONDUCTORS SO AS NOT TO INTERFERE WITH OR CONTACT EQUIPMENT AND COMPONENTS IN THE PANEL. ALSO, PROVIDE SPACING BETWEEN THE ENCLOSURE AND ALL CONDUCTORS.
14. CONDUCTORS WITHIN THE ENCLOSURE AND NOT ROUTED IN WIREWAYS, SHALL BE SECURED TO THE BACKPANEL WITH MECHANICAL FASTENERS. FASTENERS SECURED WITH ADHESIVE ARE NOT ACCEPTABLE.
15. ALL HINGED SURFACES SHALL BE GROUNDED WITH A BONDING JUMPER SECURED TO THE ENCLOSURE OR BACKPANEL.
16. THE PCSR SHALL BE A MOTOROLA ACE 3600 PACKAGE AS DISTRIBUTED BY DCR ENGINEERING SERVICES INC., SCADAONE, LLC., OR REVERE CONTROL SYSTEMS. THE PUMPING STATION CONTRACTOR SHALL COORDINATE HIS EFFORTS WITH DCR, SCADAONE, OR REVERE CONTROL SYSTEMS TO ENSURE SYSTEM COMPATIBILITY. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE DUPLEX CONTROL SYSTEM/SCADA PACKAGE, AS PROGRAMMED BY DCR, SCADAONE, OR REVERE CONTROLS–– THE EXISTING PUMPING STATION DCR CONTROLS SHALL REVERT TO THE CITY AS A SPARE.
17. A WET WELL LEVEL DETECTION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE OUTPUT SHALL BE A LINEAR 4–20 mA SIGNAL WITH RANGE AND CALIBRATION SUITABLE FOR THIS APPLICATION. THE SYSTEM SHALL BE OF THE ULTRASONIC TYPE–– PULSAR, INC. MODEL dB10 W/BLACKBOX 130 TRANSMITTER. CITY INSTRUMENTATION PERSONNEL WILL ASSIST THE CONTRACTOR WITH SPECIFYING THE TRANSDUCER MOUNTING LOCATION AND CALIBRATION. THE dB10 TRANSDUCER SHALL BE MOUNTED USING A STAINLESS STEEL BRACKET, SEE PULSAR MOUNTING BRACKET DETAIL, SHEET E13. THE EXISTING PUMPING STATION WET WELL LEVEL DETECTION SYSTEM SHALL REVERT TO THE CITY AS A SPARE.
18. PROVIDE 1/4" MINIMUM THICKNESS LEXAN SHIELDS OVER POWER DISTRIBUTION BLOCK AND OTHER EXPOSED CABLE TERMINATIONS.

PUMP MOTOR DATA

MAKE: FLYGT

MODEL: NP–3102.185 w/172 IMPELLER

HP : 5

230 V, 3 PHASE, 13 FLA

TOTAL PUMP LOAD: 26 AMPS, 10.8 KVA

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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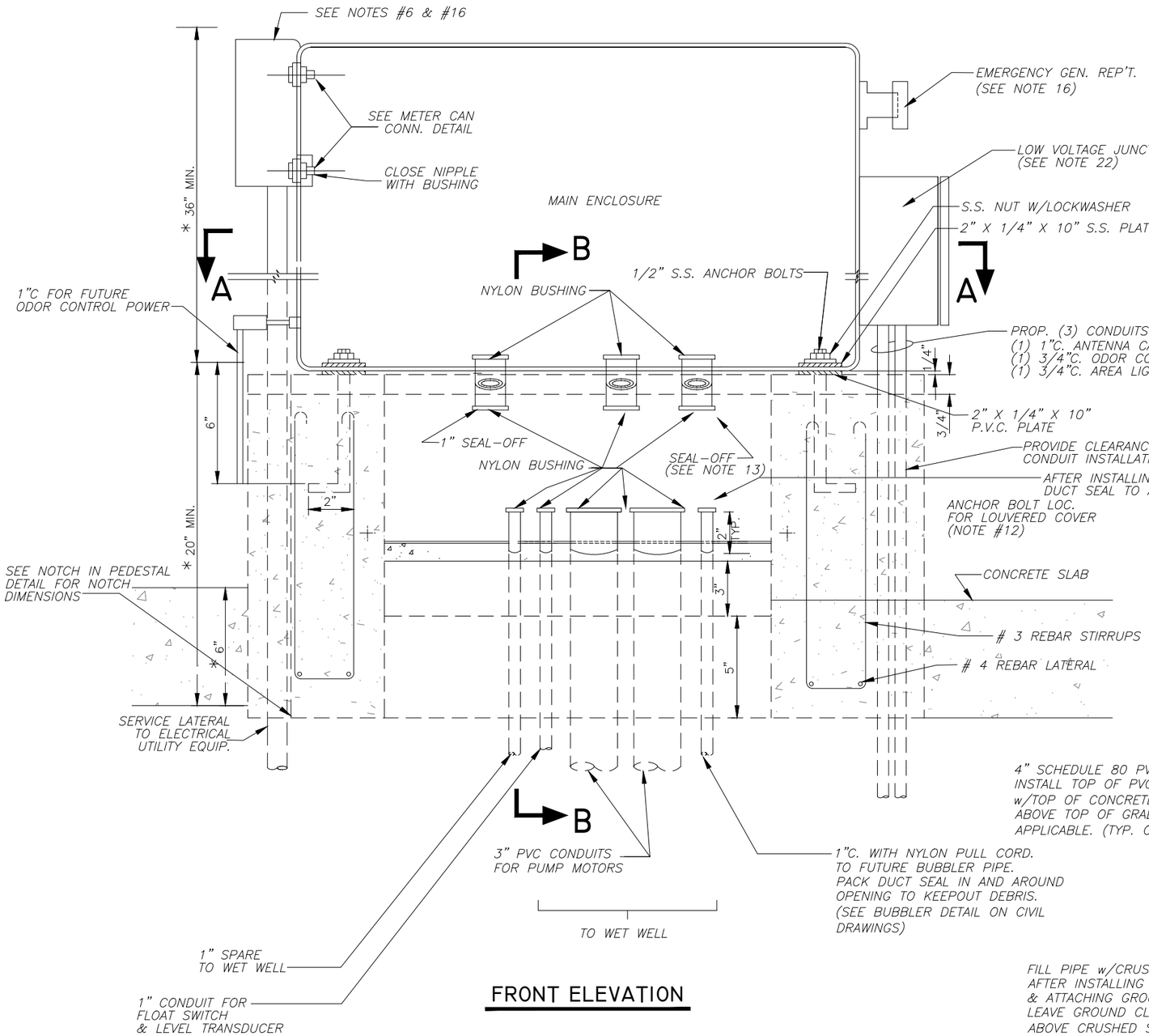
CITY of TAMPA
WASTEWATER DEPARTMENT

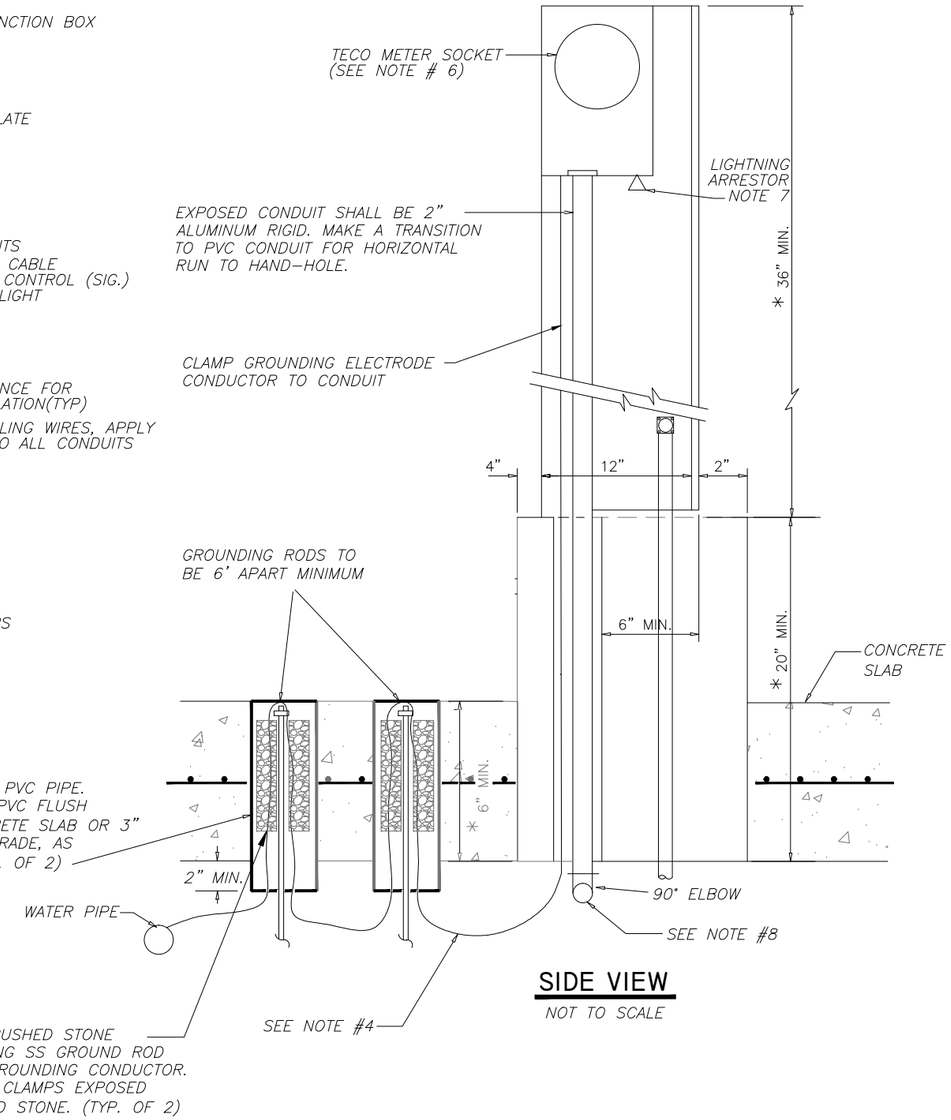
MELROSE AVENUE PUMPING STATION
REPLACEMENT
ELECTRICAL NOTES FOR SHEETS E2-E7

W.O. 5968
SHEET
E8

B086-081



FRONT ELEVATION



SIDE VIEW
NOT TO SCALE

SEE NOTES ON SHEET E12

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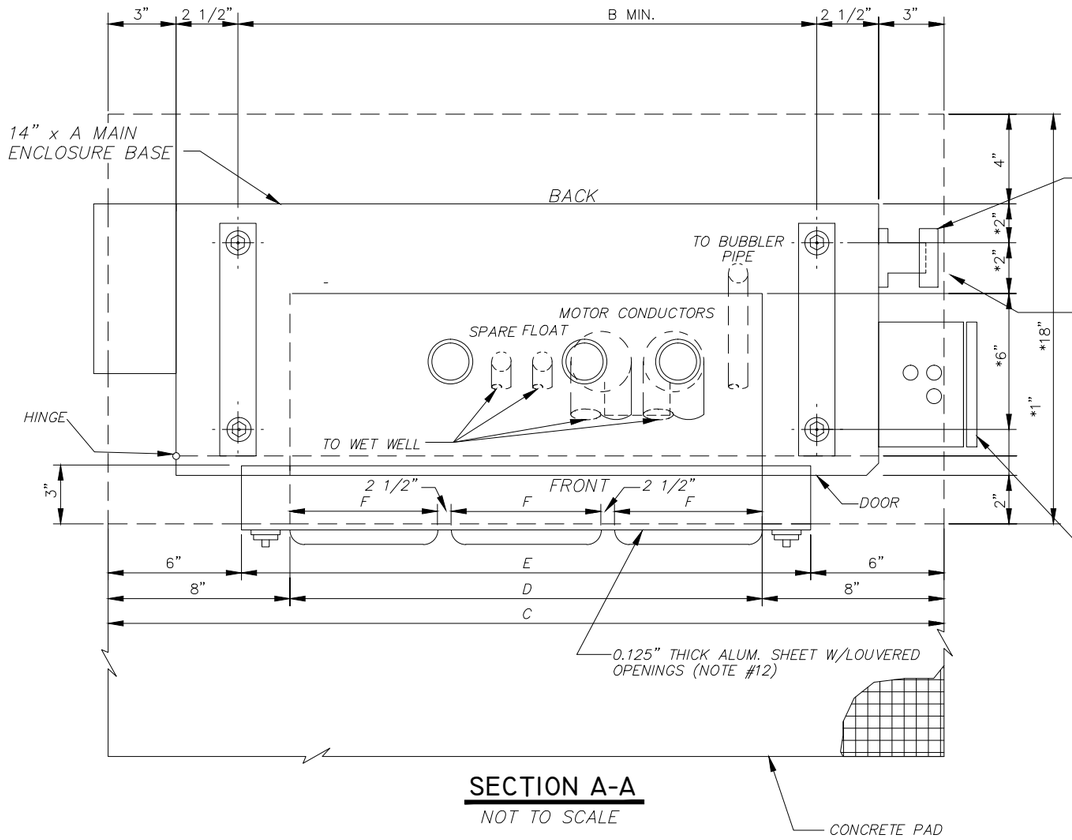
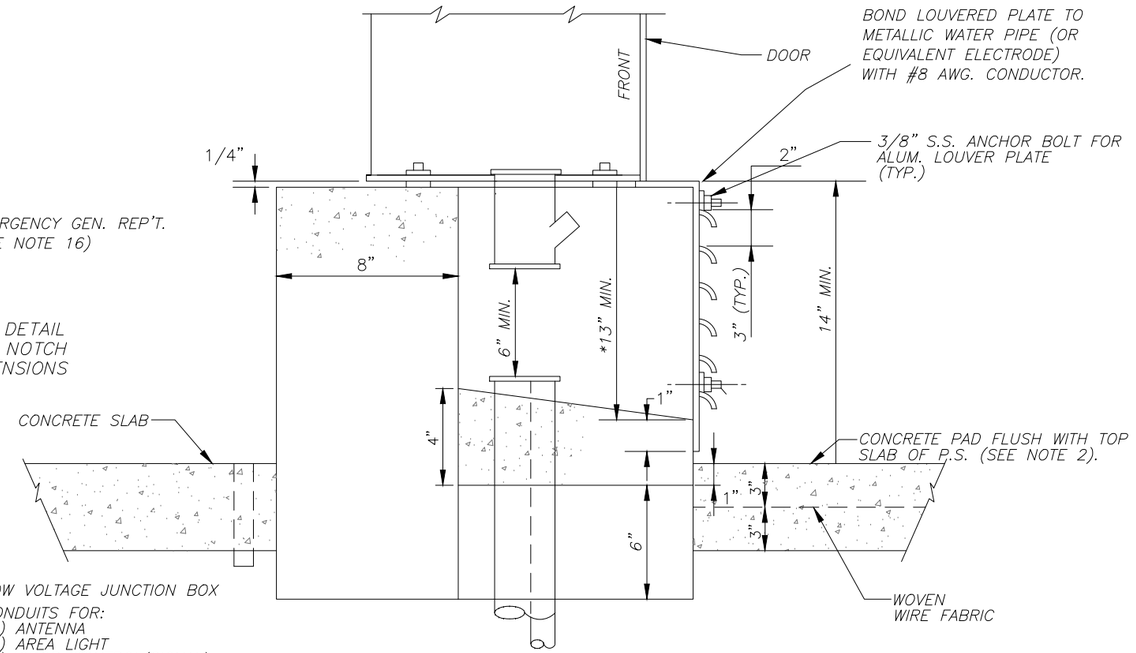
CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION
REPLACEMENT
ELECTRICAL PEDESTAL DESIGN

W.O. 5968
SHEET
E9



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

	DIMENSIONS (INCHES)						
PUMP SIZE	A	B	C	D	E	F	ENCLOSURE SIZE
5.0 HP @ 240V	42	37	48	32	36	9	48"H X 42"W X 12"D

SEE NOTES ON SHEET E12

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

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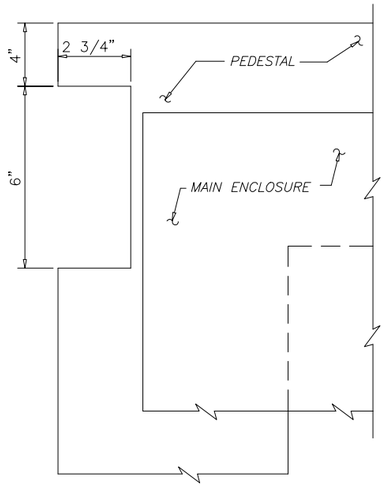
CITY of TAMPA
WASTEWATER DEPARTMENT

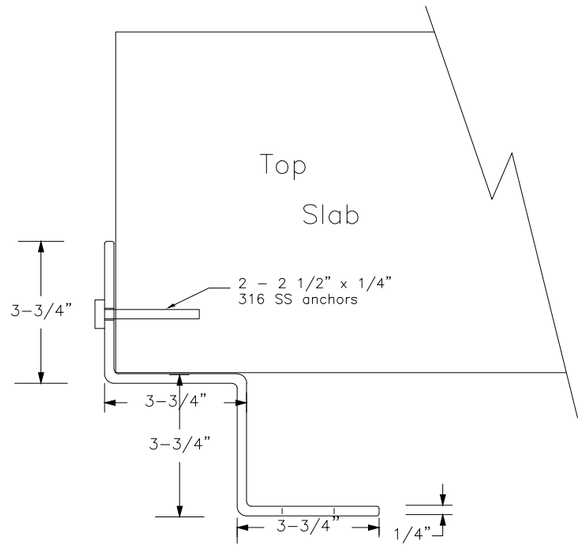
MELROSE AVENUE PUMPING STATION
REPLACEMENT
ELECTRICAL PEDESTAL DESIGN

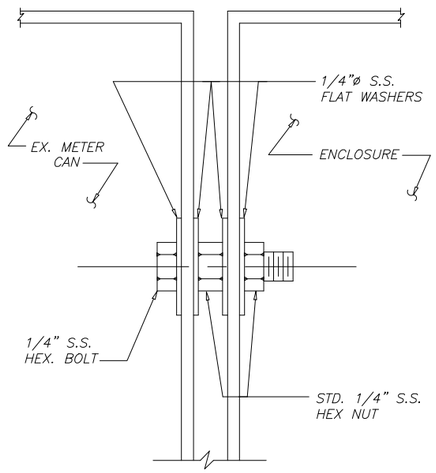
W.O. 5968
SHEET
E10



NOTCH IN PEDESTAL DETAIL

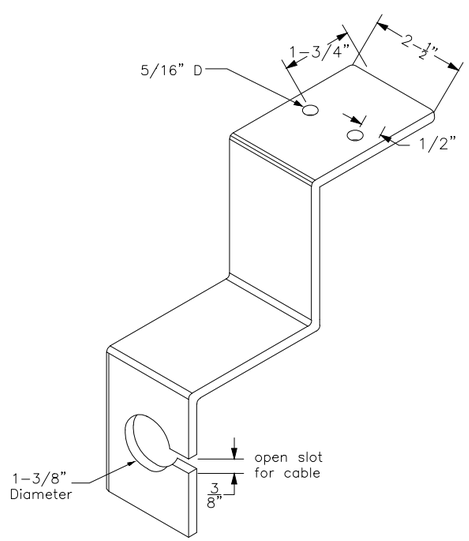
NOT TO SCALE





METER CAN CONNECTION

NOT TO SCALE



NOTES:
1. ROUND OVER ALL EDGES
2. RADIUS ALL CORNERS
3. USE 316 STAINLESS STEEL MATERIAL

PULSAR MOUNTING BRACKET DETAIL

NOT TO SCALE

SEE NOTES ON SHEET E12

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ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
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CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION
REPLACEMENT
ELECTRICAL DETAILS

W.O. 5968
SHEET
E11

B086-084

NOTES:

1. THWN CONDUCTORS (3 #10AWG & 1 #10 AWG. GND.) SHALL EXTEND FROM THE CONTROL PANEL BELOW THE SEAL–OFF A MINIMUM OF 18" AND SHALL BE SEALED IN THE SEAL–OFF SHOWN. THE SHOWN SEAL–OFFS SHALL BE ALUMINUM BODY, CROUSE–HINDS, OR EQUIVALENT. WHEN INSTALLING THE PUMPS, THE MOTOR CONDUCTORS SHALL BE SPLICED USING SPLIT BOLTS. FOR INSULATION USE MATERIALS THAT ARE RECOMMENDED BY MANUFACTURER TO EQUAL INSULATION ON CONDUCTORS. FOLLOW THE SAME PROCEDURE FOR THE LEAKAGE AND THERMAL SENSOR CONDUCTORS.

2. CONCRETE PAD SHALL BE CONSTRUCTED OF CLASS B CONCRETE REINFORCED WITH 4X4–W6X6 WWF AND SHALL HAVE A MINIMUM THICKNESS OF 6".

3. DIMENSIONS, ITEMS OR ELEVATIONS MARKED "*" TO BE DETERMINED AFTER EQUIPMENT SELECTION.

4. APPROVED GROUND CLAMPS SHALL BE ATTACHED TO TWO APPROVED GROUNDING RODS (MINIMUM SPACING 6'–0") AND THE METALLIC WATER LINE. GROUNDING CONDUCTOR SHALL BE AWG # 4 MIN. BARE STRANDED COPPER.

5. THE CONTRACTOR SHALL PROVIDE AND INSTALL A 316 S.S. MOUNTING BRACKET TO SUPPORT THE DB10 TRANSMITTER. THE BRACKET SHALL BE INSTALLED IN THE WET WELL, CITY INSTRUMENTATION PERSONAL WILL ASSIST THE CONTRACTOR WITH SPECIFYING THE TRANSDUCER MOUNTING LOCATION AND CALIBRATION.

6. METER SOCKET SUPPLIED, AND INSTALLED BY CONTRACTOR, ALSO SEE NOTE #16. THE SOCKET EDGES ARE TO BE ALIGNED WITH THE BACK AND TOP EDGE OF THE MAIN ENCLOSURE.

7. CITY APPROVED TYPE 1 SURGE PROTECTIVE DEVICE(LIGHTNING ARRESTER) TO BE INSTALLED BY CONTRACTOR ON LOAD SIDE OF METER SOCKET.

8. ELBOWS TO BE LONG BUSHED AND THE HORIZONTAL PVC CONDUIT SHALL EXTEND TO A TECO HAND–HOLE AT THE BASE OF THE POWER POLE. PROVIDE 24" MINIMUM COVER. COORDINATE THIS WORK WITH TECO.

9. RESERVED.

10. WATER SERVICE RISER TO BE LOCATED ON THE SIDE OF PANEL OPPOSITE TO THE TECO METER BOX.

11. ALUMINUM CONDUIT SURFACE THAT IS IN CONTACT WITH SOIL OR CONCRETE SHALL BE COATED WITH TWO COATS ASPHALT VARNISH (FED. SPEC. TT–V–51) EXTENDING 4" BEYOND FINAL CONTACT POINT.

12. FRONT OF OPEN SPACE TO BE COVERED BY A LOUVERED ALUM. METAL SHEET (MIN. THICKNESS 0.125) AND FASTENED WITH MIN. OF FOUR 3/8" STAINLESS STEEL BOLTS ANCHORED IN THE CONCRETE. LOUVERED PANEL TO BE REMOVABLE AND ATTACHED TO PULL BOX WITH STAINLESS STEEL BOLTS. PULL BOX COVER SHALL BE BONDED TO PULL BOX/MAIN ENCLOSURE USING MINIMUM #8 AWG EXTRA FLEXIBLE GROUNDING CONDUCTOR.

13. SEALING FITTING SHALL BE SIZED FOR CONDUCTORS. ENSURE THAT SEALING FITTING CONNECTION TO MAIN ENCLOSURE IS GAS TIGHT. USE HIGH QUALITY SEALING LOCKNUTS OR WATERTIGHT HUBS WITH A SUPPLEMENTAL BARRIER (IF NECESSARY) TO EXCLUDE GASES.

14. RESERVED.

15. REINFORCEMENT SHALL BE AT LEAST 3" FROM EDGE OF PEDESTAL.

16. TECO PREFERS STRAIGHT UNDERGROUND SERVICE CONNECTION TO THE METER BOX. TO AVOID ANY CONFIGURATION CHANGES, THE ENCLOSURE HOLES FOR THE METER BOX AND EMERGENCY CONNECTOR SHALL BE CUT AFTER THE TECO ROUTING IS VERIFIED AT THE TIME OF INSTALLATION. THE LENGTH OF CONDUCTORS FROM TECO AND EMERGENCY SERVICES WILL DEPEND ON THE SELECTED CONFIGURATION.

17. STAINLESS STEEL HANGERS TO SUPPORT THE EXCESS LENGTH OF MOTOR CABLES SHALL BE INSTALLED IN THE WET WELL. THESE HANGERS SHALL BE LOCATED IN A SEPARATE AREA FROM THE HANGERS SUPPORTING THE PUMP CHAINS.

18. TOP OF ENCLOSURE SHALL BE A MAXIMUM OF 66" ABOVE FINAL GRADE.

19. EXTEND CONCRETE PAD SUCH THAT IT IS FLUSH w/ PUMPING STATION TOP SLAB.

20. PROVIDE AND INSTALL 1" PVC CONDUIT FOR FUTURE ODOR CONTROL EQUIPMENT AS SHOWN. EXTEND CONDUIT TO EDGE OF PAVEMENT, TURN UP, AND CAP ABOVE GRADE.

21. PROVIDE AND INSTALL A PRESTRESSED CONCRETE POLE WITH LED OUTDOOR SECURITY FIXTURE AND LIGHT SWITCH.

22. CONTRACTOR SHALL PROVIDE AND INSTALL A 12"x 12"x 6" NEMA 4X STAINLESS STEEL JUNCTION BOX.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

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CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
ELECTRICAL NOTES FOR SHEETS E9-EII

W.O. 5968
SHEET
E12

B086-085

PARTS SCHEDULE

SYMBOL	NAME	PART				REMARKS
		MAKE	TYPE	MODEL or CAT. #	RATING	
CB 1	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36100	600 V, 100 A	25 KAIC @ 240 VAC
CB 2	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36100	600 V, 100 A	
CB 3, 4	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36035	600 V, 35A	
CB 5	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36015	600 V, 15A	
ITS-1	INSULATED TERMINAL STRIP	BUSSMANN	SERIES PDB	PDB321-1	600 VAC	WIRE RANGE #2/0 TO #8 AWG
ITS-2	INSULATED TERMINAL STRIP	BUSSMANN	SERIES 160, 162, 163, & 165	PDB16200-1	600 VAC	WIRE RANGE #2 TO #14 AWG CU.
ITS-3	INSULATED TERMINAL STRIP	ALLEN-BRADLEY	STYLE AA	1492-15-T	600 V AC NEUTRAL BLOCK	4 CONTACTS (MIN) W/SHORTING BARS
CB 6, 7, 8. 9, 10	CIRCUIT BREAKER	SQUARE D	SINGLE POLE	QOU 115	120 V, 15A	
M1, 2	MOTOR STARTER	SQUARE D	NEMA SIZE 2	CLASS 8536 TYPE SD01V02	120 V, (COIL)	15 HP (MAX) 1 N.O.
OL 1, 2	OVERLOAD RELAY	SQUARE D	BIMETALLIC, AMBIENT COMPENSATED	AR 27	12.8 - 14.4 A	
CA1, CA2	CURRENT SENSOR	ENERCORP INSTRUMENTS	4-20 mA OUTPUT	SC200-1	0 - 50A	ADJUSTABLE RANGE
PL1, PL4	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LYA9	120 V, LED TYPE	YELLOW LENS & PRESS TEST
PL5, PL6	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LRR9	120 V, LED TYPE	RED LENS & PRESS TEST
PL2, PL3	ILLUM. PUSH BUTTON	SQUARE D	CLASS 9001	SK2L38LRRH13	120 V, LED TYPE	RED LENS & INO, INC
S1, S2	HOA SWITCH ASSEMBLY	SQUARE D	OIL-TIGHT CLASS 9001	SKS - 43B H2	10A @ 120V	
ETM1, ETM2	ELAPSE TIME METER	CRAMER	NON-RESET	635E+S	120 V	3.5" ROUND BEZEL FACE MUST FIT A 2.5" DIA. HOLE
ZS1	CONTROL PNL INTRUSION SENSOR	OMRON	CYLINDRICAL, SHORT BARREL	E2f-X5E1 (GRAINGER- 6C826)	10-30VDC, 3-WIRE NPN	W/ SQUARE D MTG. BRACKET (GRAINGER- 5B233)
FF & TS	FLUORESCENT FIXTURE	DAYTON	INDUSTRIAL	2 V 811	120 V 20w	W/TOGGLE SWITCH-TS AND TUBE GUARD
WR	WALL RECEPTACLE	HUBBELL	DUPLEX W/GFI	GF5262	120V AC, 15A GFI	W/UTILITY BOX AND COVER
EC	EMERGENCY CONNECTOR	CROUSE & HINDS	ARKTROL	AR-1041-S22 w/AJA6 ANGLE ADAPTER	600 V, 100 A	MALE
SPD-2	SURGE PROTECTIVE DEVICE TYPE 1	ADVANCED PROTECTION TECHNOLOGIES	MAIN PANEL SPD-2	TE03XDS104X	120/240 V, 3Ø DELTA	
MI	MECHANICAL INTERLOCK	SQUARE D	TOGGLE TYPE	S29354		INTERLOCK CB-1 & 2
F2, F3	PANEL MOUNT FUSE HOLDER AND FUSE	BUSSMANN	1/4"x 1-1/4" GLASS TUBE	HOLDER: HKP-HH-R, FUSE: AGC-1	250 VAC, 1 AMP	

PARTS SCHEDULE IS CONTINUED ON NEXT SHEET

NOTES:

1. ALARM FLOAT SWITCH WILL BE SUPPLIED BY WWD AND INSTALLED BY CONTRACTOR.
2. DIMENSIONS, ITEMS, OR ELEVATIONS MARKED '*' SHALL BE DETERMINED AFTER EQUIPMENT SELECTION.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

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DRN: LRG
CKD: RDK
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION
REPLACEMENT
PARTS SCHEDULE (1 OF 2)

W.O. 5968
SHEET
E13

B086-086

PARTS SCHEDULE (CONT'D)

SYMBOL	NAME	PART				REMARKS
		MAKE	TYPE	MODEL or CAT. #	RATING	
FL	FLOAT SWITCH	ANCHOR SCIENTIFIC	SPDT	S20NONC	10 A @ 120 V	
SPD1	LIGHTNING ARRESTOR	GENERAL ELECTRIC	TRANQUEL	9L 15 ECC 001	650 V	
TB 1	TERMINAL BOARD	PHOENIX CONTACT		UK5N TERMINALS	30 A W/ ALUM. DIN RAIL	37 CONTACTS (MIN)
ME	CONTROL ENCLOSURE *	QUALITY METALS	NEMA 3 THREE POINT LATCH	48"X42"X14" SS 3	304 SS, 14 GAUGE	W/DOOR STOP KIT #A-DSTOPK. EXTERNAL DURABLE RAL 9003 WHITE POWDER COAT
MP	ENCLOSURE PANEL *	QUALITY METALS	45"X 39", STEEL	S 42 P 36, WHITE	STEEL, 12 GAUGE	
GB 1, 2	GROUNDING BLOCK	ILSCO	AS REQUIRED	AS REQUIRED		
SLD1, SLD2	SEAL LEAK DETECTOR	SYRELEC	8 PIN PLUG-IN	PNRU110	110V INPUT, 10A CONTACT	SPDT W/SOCKET
TA1, TA2, FM1, FM2 MS1, MS2, CR3, CR4	CONTROL RELAY	POTTER & BRUMFIELD	8 PIN PLUG-IN	KRPA-11AG-120	120V COIL, 10A CONTACTS	DPDT W/SOCKET AND HOLD DOWN SPRING
LEV	WET WELL LEVEL SENSOR	PULSAR, INC.	ULTRASONIC	dB10 TRANSDUCER W/ BLACKBOX 130 TRANSMITTER PART #: 130-110-300-00P-KP-TROP	1 TO 32.8 FT RANGE 115VAC/24VDC POWERED W/ 4-20MA AND (2) RELAY OUT W/ KEY PAD, DISPLAY, AND TROPICALIZATION	CITY FORCES WILL PROVIDE ASSISTANCE WITH MOUNTING AND CALIBRATION
PCSR	PLC BASED PUMP CONTROLLER, SCADA, AND RADIO SYSTEM	MOTOROLA CORPORATION	DUPLEX PUMP CONTROLLER BASED ON ACE 3600 PROGRAM CONTROLLER	ACE 3600 W/ UHF RADIO CDM 750, 403-512 MHz PART #: F7564	1-AC POWER SUPPLY 85-264V W/ BAT CHARGER PART #:V261	1-PLUG IN POWER SUPPLY # ACE-AUX-DCPS, 11-14 VDC INPUT
SLOTS 1 & 2		MOTOROLA CORPORATION	1- MIXED I/O AUXILLARY INTERFACE BOARD PART #: V245-AUX-I/O	1- 40 WIRE CABLE W/TB HOLDER 3M PART #: V358	1- ACE CPU3640 PART #:V446	
	1-3 I/O SLOT FRAME PART #: V103	1-20 PIN TB HOLDER KIT PART #: V158	1- 14x 14 METAL CHASSIS PART #: V214	1- 16DI, 4DO(EE), 20mA MODULE PART #: V245	1- 40 PIN TB HOLDER KIT PART #:V153	
	1- 10.0 Ah BATTERY PART #: V328					
PM1, PM2, PM3, PM4	3-PHASE POWER MONITOR	ATC DIVERSIFIED	8 PIN PLUG-IN	SLA-230-ASA	230 VAC	W/OPTIONAL 5-SEC. RELEASE AND DIN RAIL SOCKET
PDB	PWR DIST. BLOCK	ILSCO	THREE POLE	PDB-26-2/0-3	600 V, 350 AMP	W/ LEXAN COVER
MS	METER SOCKET & PAN	MILBANK	7 TERMINAL	UAP3506-XL-TG-HSP	600 VAC, 125 A	ALUMINUM CONSTRUCTION
FBD1, FBD2, FBD3, FBD4	FUSE BLOCK / DISCONNECT	ALLEN BRADLEY	THREE PHASE-- HIGH INTER. CAP.	1492-FB3C30-L	600 VAC, 200KAIC	W/BUSSMANN KTK-R-2 FAST ACTING, REJECTION FUSES
BATT.	BATTERY	POWERSONIC	ABSORBENT GLASS MAT (AGM)	PS-1270 F2	12 VOLT, 7.0 AH	W/ 0.25" X 0.032" TABS
BATT. CHRG.	BATTERY CHARGER	DELTRAN CORP.	BATTERY TENDER	WATERPROOF 800	12 VOLT, 800 mADC	QUALIFICATION, BULK, & FLOAT CHARGING
PC-1	BACKUP PUMP CONTROLLER	WILKERSON	DUPLEX LIFT STATION	BR560 OR DR1920	10 AMP CONTACTS	DIN RAIL MOUNTING
	LOW VOLTAGE JUNCTION BOX	WEIGMANN	NEMA 4X	N 412121206SSC 12"x 12"x 6"	304 S.S., 14 GAUGE	

NOTES:

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CITY of TAMPA
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION REPLACEMENT
PARTS SCHEDULE (2 OF 2)

W.O. 5968
SHEET
E14

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B086-087

LEGEND PLATE SCHEDULE

SYMBOL	DEVICE	LEGEND
ETM1	ELAPSED TIME METER	PUMP NO. 1 HOURS
ETM2	ELAPSED TIME METER	PUMP NO. 2 HOURS
PL1	YELLOW PILOT LIGHT	PUMP NO. 1 ON
PL2	RED ILLUMINATED PUSH BUTTON	PUMP NO. 1 HIGH TEMPERATURE AND RESET
PL3	RED ILLUMINATED PUSH BUTTON	PUMP NO. 2 HIGH TEMPERATURE AND RESET
PL4	YELLOW PILOT LIGHT	PUMP NO. 2 ON
S1	3 POSITION SWITCH	PUMP NO 1 HAND–OFF–AUTO
PL5	RED PILOT LIGHT	PUMP NO. 1 SEAL LEAK
PL6	RED PILOT LIGHT	PUMP NO. 2 SEAL LEAK
S2	3 POSITION SWITCH	PUMP NO. 2 HAND–OFF–AUTO

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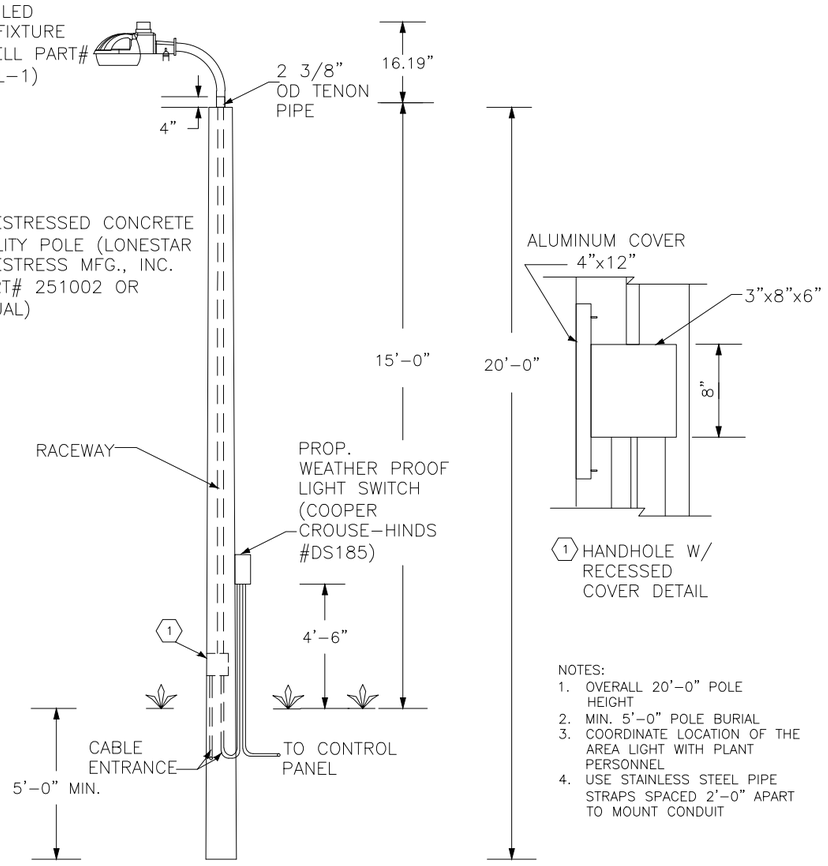
WASTEWATER DEPARTMENT

MELROSE AVENUE PUMPING STATION
REPLACEMENT
ELECTRICAL CONTROLS LEGEND AND PLATES

W.O. 5968
SHEET
E15

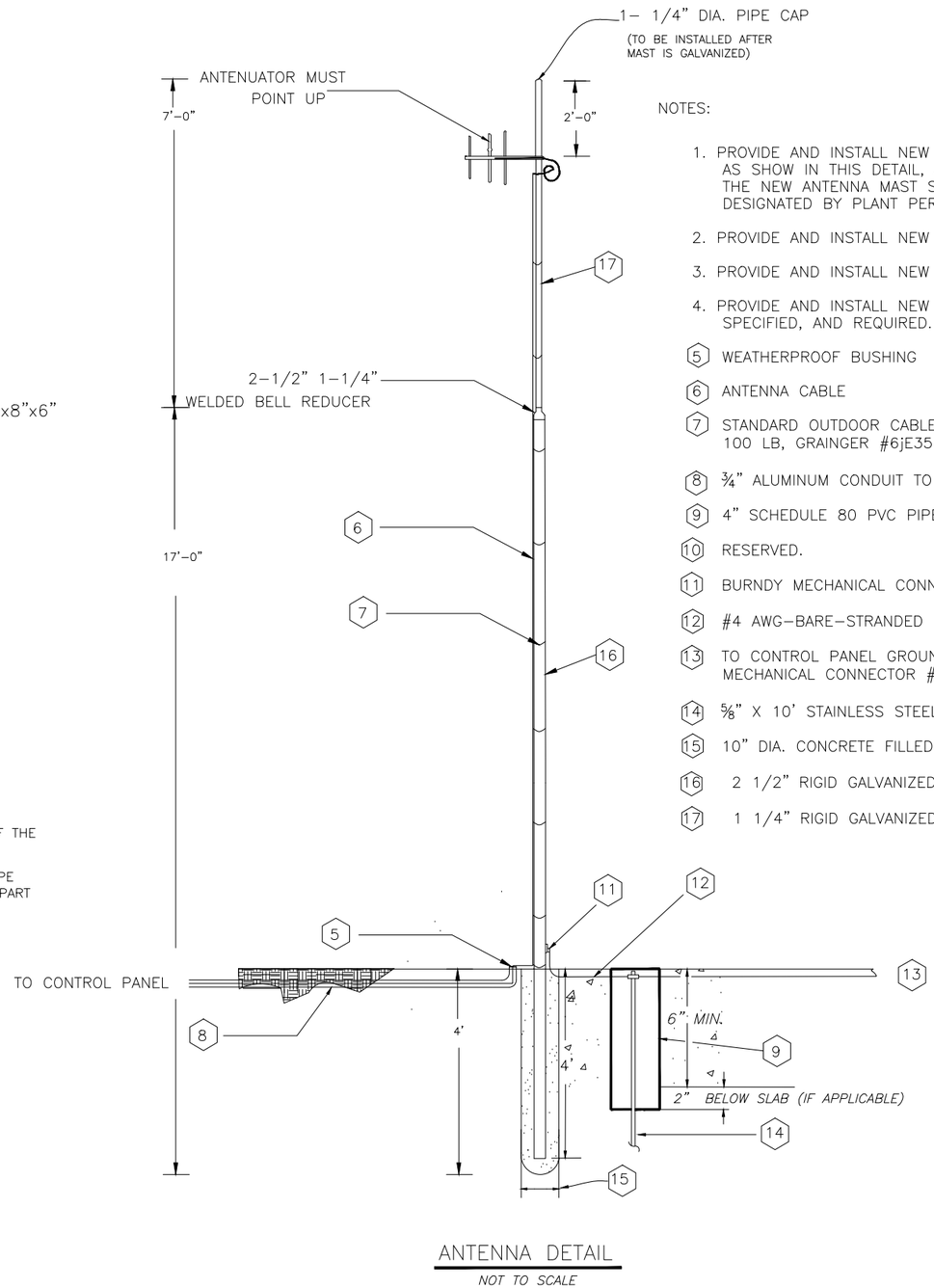
B086-088



NOTES:
1. OVERALL 20'-0" POLE HEIGHT
2. MIN. 5'-0" POLE BURIAL
3. COORDINATE LOCATION OF THE AREA LIGHT WITH PLANT PERSONNEL
4. USE STAINLESS STEEL PIPE STRAPS SPACED 2'-0" APART TO MOUNT CONDUIT

AREA LIGHT DETAIL

NOT TO SCALE



NOTES:

1. PROVIDE AND INSTALL NEW GALVANIZED STEEL MAST AND ANTENNA SYSTEM, AS SHOW IN THIS DETAIL, AND REQUIRED BY THE PROPOSED SCADA RADIO. THE NEW ANTENNA MAST SHALL BE INSTALLED IN THE LOCATION AS DESIGNATED BY PLANT PERSONNEL.
2. PROVIDE AND INSTALL NEW ANTENNA COAX CABLE, AS REQUIRED.
3. PROVIDE AND INSTALL NEW UNDERGREOUND CONDUIT, AS REQUIRED.
4. PROVIDE AND INSTALL NEW ANTENNA GROUNDING SYSTEM, AS SHOWN, SPECIFIED, AND REQUIRED.

(5) WEATHERPROOF BUSHING
(6) ANTENNA CABLE
(7) STANDARD OUTDOOR CABLE TIES, 304 STAINLESS STEEL, TENSILE STRENGTH 1 100 LB, GRAINGER #6jE35
(8) ¾" ALUMINUM CONDUIT TO CONTROL PANEL
(9) 4" SCHEDULE 80 PVC PIPE
(10) RESERVED.
(11) BURNDY MECHANICAL CONNECTOR #KA25-4-1/O
(12) #4 AWG-BARE-STRANDED
(13) TO CONTROL PANEL GROUNDING SYSTEM, USE CADWELD OR BURNDY MECHANICAL CONNECTOR #VT2525
(14) ⅝" X 10' STAINLESS STEEL GROUND ROD
(15) 10" DIA. CONCRETE FILLED HOLE
(16) 2 1/2" RIGID GALVANIZED STEEL PIPE
(17) 1 1/4" RIGID GALVANIZED STEEL PIPE

ANTENNA DETAIL

NOT TO SCALE

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MELROSE AVENUE PUMPING STATION REPLACEMENT
AREA LIGHT DETAIL AND ANTENNA DETAIL

W.O. 5968
SHEET
E16