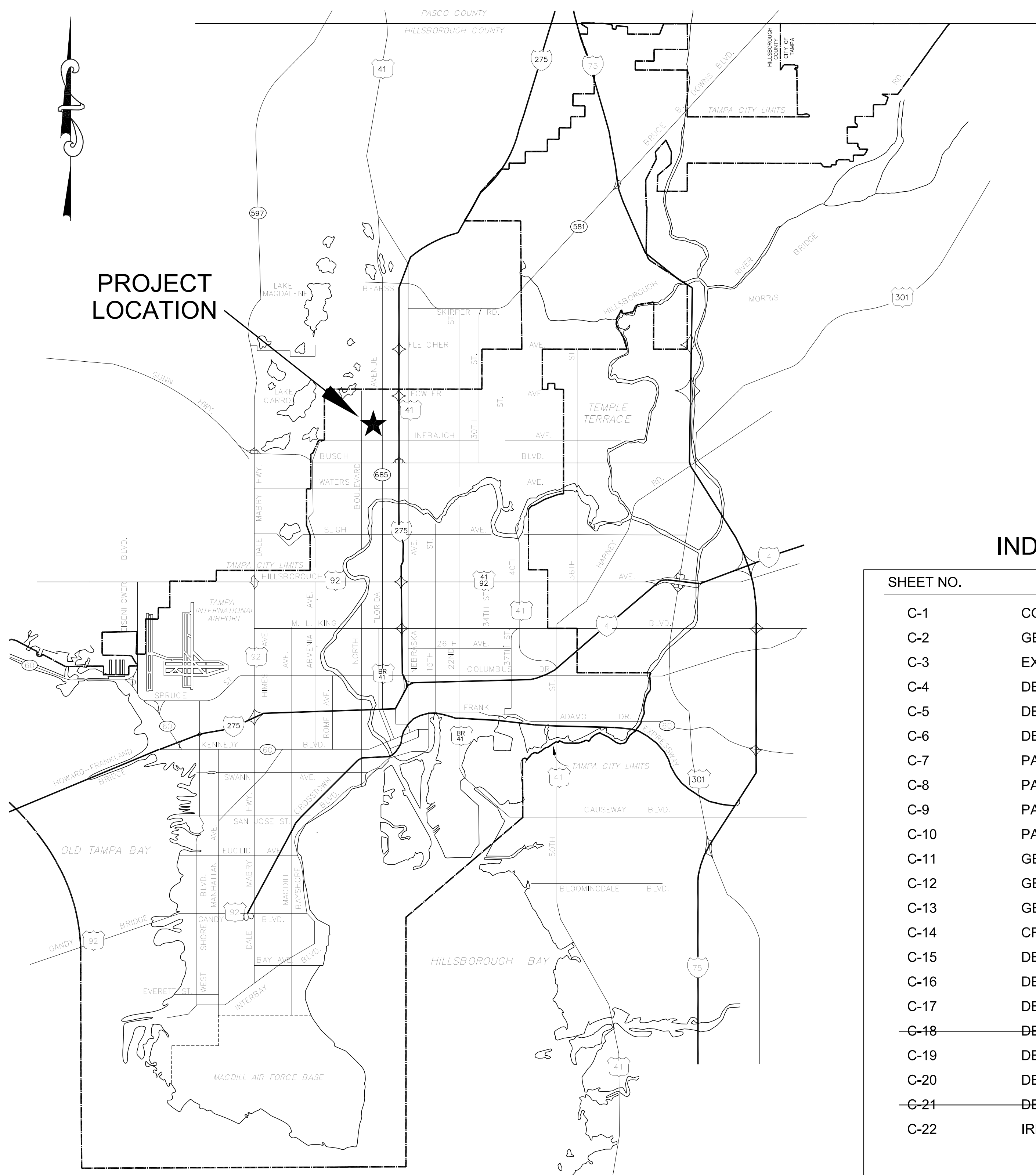


**The Enclosed Document Is Provided For Your Convenience.**

**Please Email ALL Questions:**  
**[MailTo:ContractAdministration@TampaGov.net](mailto:ContractAdministration@TampaGov.net)**

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



CITY of TAMPA



**DEPARTMENT OF  
TRANSPORTATION AND STORMWATER SERVICES  
STORMWATER ENGINEERING DIVISION**

**PLANS FOR  
FOREST HILLS PARK CONSTRUCTION PLANS**

**CONTRACT NO. 19-C-00020**

**INDEX OF DRAWINGS**

SHEET NO.	TITLE
C-1	COVER SHEET
C-2	GENERAL NOTES
C-3	EXISTING CONDITIONS - OVERALL
C-4	DEMOLITION PLAN - NORTH
C-5	DEMOLITION PLAN - CENTRAL
C-6	DEMOLITION PLAN - SOUTH
C-7	PARK IMPROVEMENT PLAN - OVERALL
C-8	PARK IMPROVEMENT PLAN - NORTH
C-9	PARK IMPROVEMENT PLAN - CENTRAL
C-10	PARK IMPROVEMENT PLAN - SOUTH
C-11	GEOMETRY COORDINATES PLAN - NORTH
C-12	GEOMETRY COORDINATES PLAN - CENTRAL
C-13	GEOMETRY COORDINATES PLAN - SOUTH
C-14	CROSS SECTIONS
C-15	DETAILS
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<del>C-18</del>	<del>DETAILS</del> NOT IN CONTRACT
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C-20	DETAILS
<del>C-21</del>	<del>DETAILS - PERMATRAK</del> NOT IN CONTRACT
C-22	IRRIGATION DETAILS
<b>RACQUETBALL COURT DRAWINGS</b>	
CS	COVER SHEET
S-1	STRUCTURAL NOTES
S-2	STRUCTURAL FLOOR PLANS

ENGINEER-OF-RECORD

H. DUANE MILFORD  
P.E. # 42657

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

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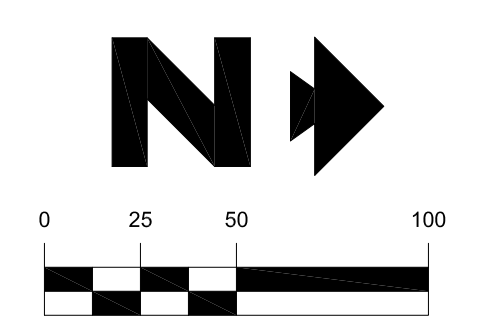
CITY of TAMPA  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

**MPH**  
CIVIL CONSULTANTS, INC.

P.O. Box  
Odessa, Florida 33556  
Phone: 813.731.0052  
duane@mphcivil.com  
Florida CA No.: 30727

SHEET  
1  
OF 22



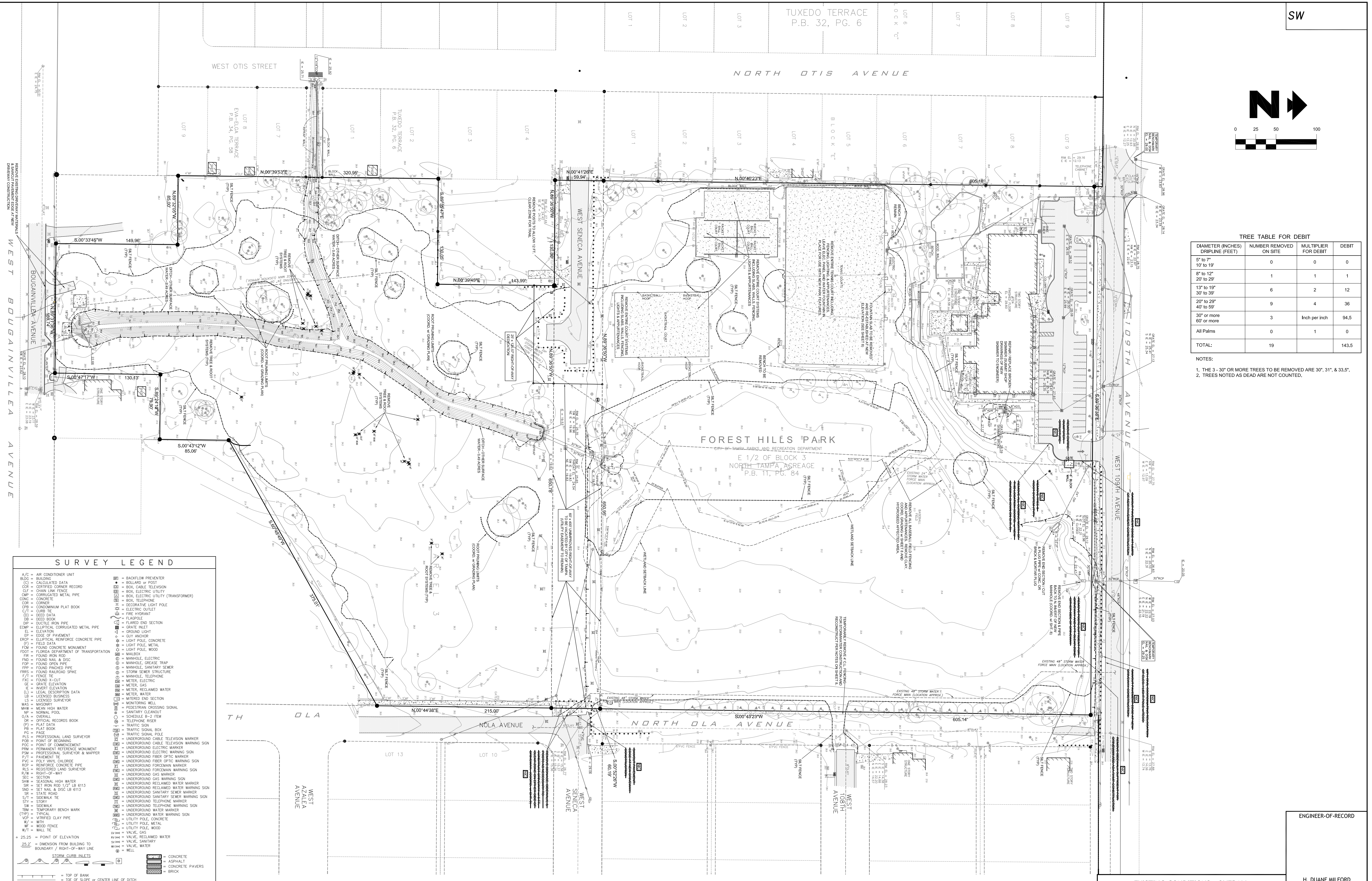


**TREE TABLE FOR DEBIT**

DIAMETER (INCHES) DRIPLINE (FEET)	NUMBER REMOVED ON SITE	MULTIPLIER FOR DEBIT	DEBIT
5" to 7"	0	0	0
8" to 12"	1	1	1
13" to 19"	6	2	12
20" to 29"	9	4	36
30" or more	3	Inch per inch	94.5
All Palms	0	1	0
<b>TOTAL:</b>	<b>19</b>		<b>143.5</b>

**NOTES:**

1. THE 3 - 30" OR MORE TREES TO BE REMOVED ARE 30", 31", & 33.5".
2. TREES NOTED AS DEAD ARE NOT COUNTED.



**SURVEY LEGEND**

A/C = AIR CONDITIONER UNIT	BLDG = BUILDING	CL = CONCRETE	CLC = CORRUGATED METAL PIPE	CON = CONCRETE	CP = CORNER	CPB = CONDOMINIUM PLAT BOOK	CURB = CURB	DEED = DEED DATA	DI = DUCTILE IRON PIPE	EL = ELLIPTICAL CORRUGATED METAL PIPE	ELM = ELEVATION	EM = EDGE OF PAVEMENT	ERCC = ELLIPTICAL REINFORCED CONCRETE PIPE	FD = FIELD DATA	FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION	FR = FOUND FROM RECORD	FND = FOUND NAIL & DISC	FOP = FOUND OPEN PIPE	FPP = FOUND FINISHED PIPE	FPS = FOUND RAILROAD SPIKE	F/T = FENCE TIE	F/C = FENCE 1/4-CUT	GE = GRATE ELEVATION	INVT = INVERT ELEVATION	LD = LEGAL DESCRIPTION DATA	LB = LICENSED BUSINESS	LS = LICENSED SURVEYOR	MA = MASONRY	MHW = MEAN HIGH WATER	NP = NORMAL POOL	OR = OVERALL	ORP = OFFICIAL RECORDS BOOK	PI = PLAT DATA	PIB = PLAT BOOK	PLS = PROFESSIONAL LAND SURVEYOR	POB = POINT OF BEGINNING	POC = POINT OF COMMENCEMENT	PRM = PERMANENT REFERENCE MONUMENT	PSM = PROFESSIONAL SURVEYOR & MAPPER	PST = PAYMENT TO	PVC = POLY VINYL CHLORIDE	RCP = REINFORCED CONCRETE PIPE	RLS = REGISTERED LAND SURVEYOR	R/W = RIGHT-OF-WAY	SEC = SECTION	SHR = SEASONAL HIGH WATER	SI = SET IRON ROD 1/2" LB 613	SND = SET NAIL & DISC LB 613	STR = STATE ROAD	S/T = SIDEWALK TIE	ST = STORMY	SW = SIDEWALK	TBM = TEMPORARY BENCH MARK	TR = TYPICAL	VC = VERTICAL CURVE	VP = VERTICAL PAVEMENT	W = WITH	WF = WOOD FENCE	W/T = WALL TIE	25.25' = POINT OF ELEVATION	25.2' = DIMENSION FROM BUILDING TO BOUNDARY / RIGHT-OF-WAY LINE	SYSTEM CLOSURE INLETS	CONCRETE	ASPHALT	CONCRETE PAVERS	BRICK
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2			5		
1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

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**CITY of TAMPA**  
 Department of Transportation  
 and Stormwater Services  
 Stormwater Engineering Division

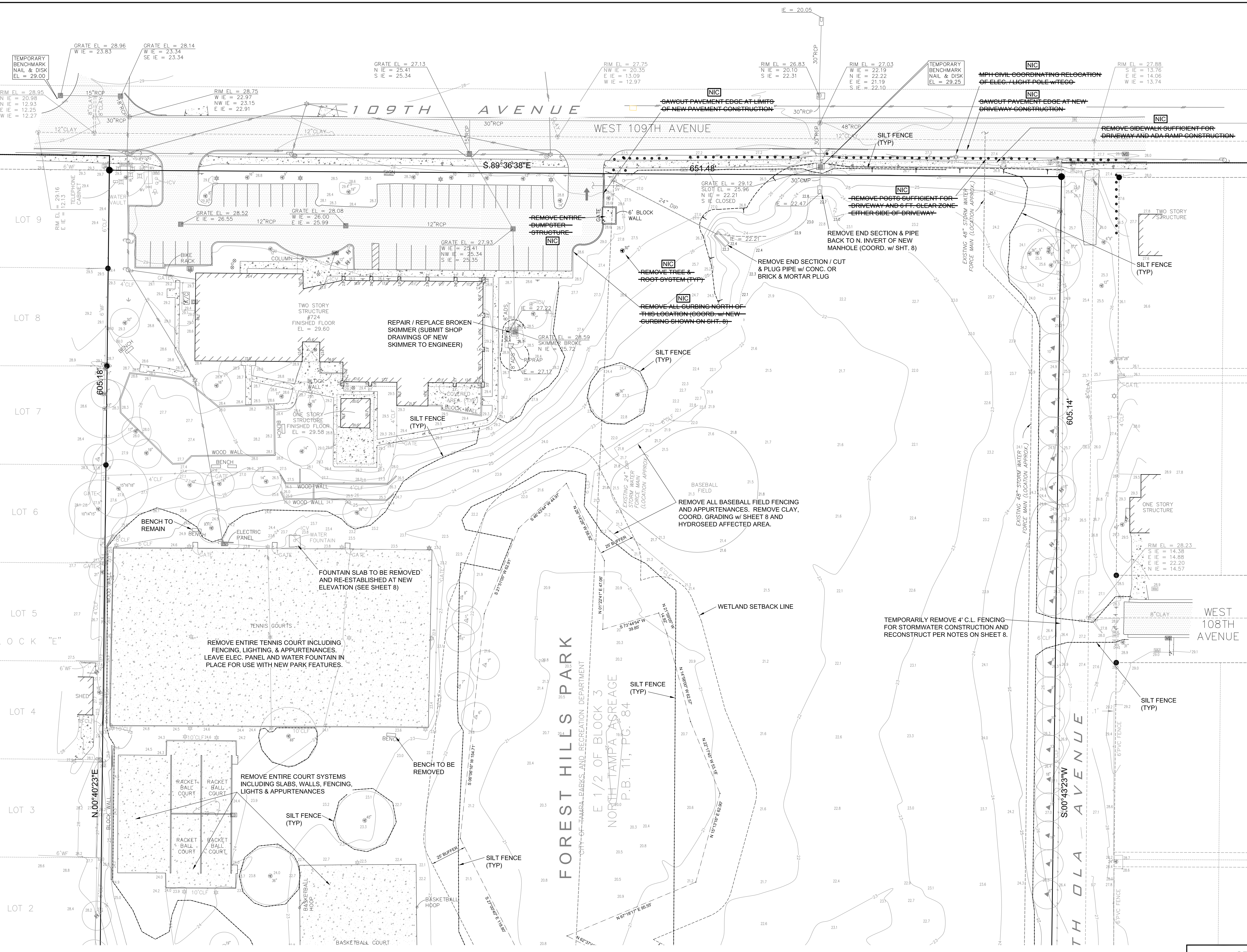
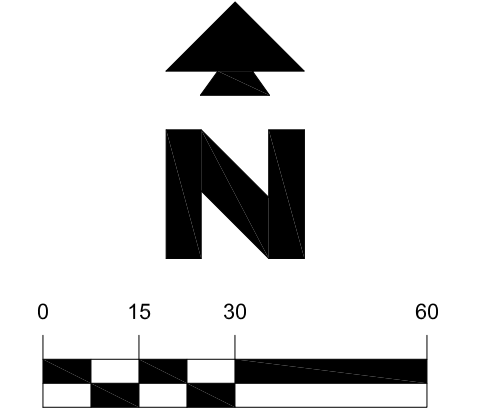
**EXISTING CONDITIONS - OVERALL**

**ENGINEER-OF-RECORD**  
 H. DUANE MILFORD  
 P.E. # 42657

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 duane@mphcivil.com  
 Florida CA No.: 30727

**SHEET 3 OF 21**

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**SURVEY LEGEND**

A/C = AIR CONDITIONER UNIT	BLG = BACKFLOW PREVENTER
BLDG = BUILDING	CD = CALCULATED DATA
CC = CERTIFIED CORNER RECORD	CR = CONCRETE
CM = CORRUGATED METAL PIPE	CP = CONCRETE PAVEMENT
CONC = CONCRETE	CR = CONCRETE
COR = CORNER	CR = CONCRETE
CPB = CONCRETE PLAT BOOK	CR = CONCRETE
C/S = CENTERLINE	CR = CONCRETE
DEED = DEED BOOK	CR = CONCRETE
DIP = DUCTILE IRON PIPE	CR = CONCRETE
EQUIP = EQUIPMENT	CR = CONCRETE
EL = ELEVATION	CR = CONCRETE
ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE	CR = CONCRETE
F/D = FIELD DATA	CR = CONCRETE
FCM = FOUND CONCRETE MONUMENT	CR = CONCRETE
FDDT = FOUND DRAINAGE DITCH	CR = CONCRETE
FND = FOUND NAIL & DISC	CR = CONCRETE
FOP = FOUND OPEN PIPE	CR = CONCRETE
FRP = FOUND FINISHED PIPE	CR = CONCRETE
FRS = FOUND RAINGARD SPIRE	CR = CONCRETE
F/T = FENCE TYPE	CR = CONCRETE
GE = GRADE ELEVATION	CR = CONCRETE
IB = INVERT ELEVATION	CR = CONCRETE
LD = LICENSED BUSINESS	CR = CONCRETE
LS = LICENSED SURVEYOR	CR = CONCRETE
M = MASONRY	CR = CONCRETE
MHW = MEAN HIGH WATER	CR = CONCRETE
N = NORMAL POOL	CR = CONCRETE
O/A = OVERALL	CR = CONCRETE
OR = OFFICIAL RECORDS BOOK	CR = CONCRETE
P = PLAT BOOK	CR = CONCRETE
P/C = PROFESSIONAL LAND SURVEYOR	CR = CONCRETE
P/S = POINT OF BEGINNING	CR = CONCRETE
PRM = PERMANENT REFERENCE MONUMENT	CR = CONCRETE
P/S = PROFESSIONAL SURVEYOR & MAPPER	CR = CONCRETE
P/T = PAVEMENT TYPE	CR = CONCRETE
PVC = POLY VINYL CHLORIDE	CR = CONCRETE
RCP = REINFORCED CONCRETE PIPE	CR = CONCRETE
R/W = RIGHT-OF-WAY	CR = CONCRETE
SEC = SECTION	CR = CONCRETE
SHW = SEASONAL HIGH WATER	CR = CONCRETE
SR = SET IRON ROD 1/2" LB 6113	CR = CONCRETE
SND = SET NAIL & DISC LB 6113	CR = CONCRETE
SR = STATE ROAD	CR = CONCRETE
S/T = SIDEWALK TYPE	CR = CONCRETE
SW = SIDEWALK	CR = CONCRETE
TEM = TEMPORARY BENCH MARK	CR = CONCRETE
W/P = WETTED CLAY PIPE	CR = CONCRETE
W = WITH	CR = CONCRETE
W/F = WOOD FENCE	CR = CONCRETE
W/T = WALL TYPE	CR = CONCRETE
+ 25.25 = POINT OF ELEVATION	CR = CONCRETE
25.2' = DIMENSION FROM BUILDING TO BOUNDARY / RIGHT-OF-WAY LINE	CR = CONCRETE
CONC = CONCRETE	CR = CONCRETE
ASPH = ASPHALT	CR = CONCRETE
CPAV = CONCRETE PAVERS	CR = CONCRETE
BRICK = BRICK	CR = CONCRETE
TOP OF BANK	CR = CONCRETE
TOE OF SLOPE w/ CENTER LINE OF DITCH	CR = CONCRETE
6" CHAIN LINK FENCE UNLESS OTHERWISE NOTED	CR = CONCRETE
OVERHEAD UTILITY LINES	CR = CONCRETE
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE	CR = CONCRETE
APPROXIMATE LOCATION OF UNDERGROUND WATER LINE	CR = CONCRETE
APPROXIMATE LOCATION OF UNDERGROUND FORCE MAIN	CR = CONCRETE
APPROXIMATE LOCATION OF UNDERGROUND SANITARY SEWER LINE	CR = CONCRETE
APPROXIMATE LOCATION OF UNDERGROUND STORM SEWER LINE	CR = CONCRETE
52.15 = BACK OF CURB	CR = CONCRETE
51.83 = EDGE OF PAVEMENT	CR = CONCRETE

ENGINEER-OF-RECORD

DEMOLITION PLAN - NORTH  
H. DUANE MILFORD  
P.E. # 42657

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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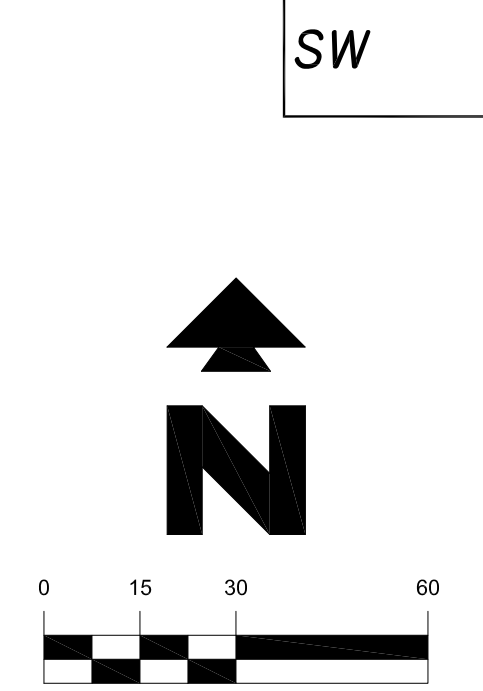
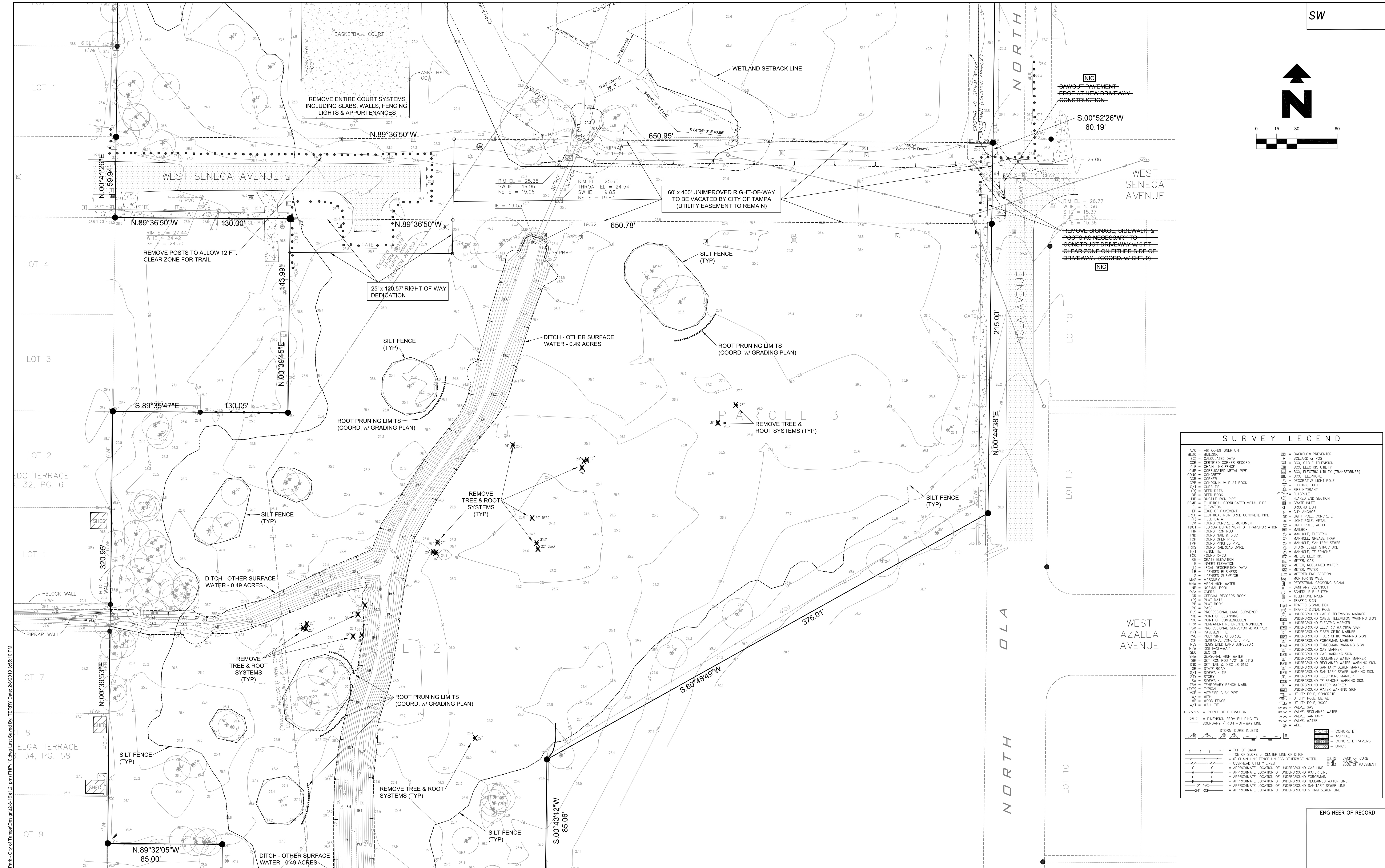
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Odessa, Florida 33556  
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Florida CA No.: 30727

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OF  
21

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### SURVEY LEGEND

<ul style="list-style-type: none"> <li>A/C = AIR CONDITIONER UNIT</li> <li>BLDG = BUILDING</li> <li>CD = CALCULATED DATA</li> <li>CCR = CERTIFIED CORNER RECORD</li> <li>CLF = CHAIN LINK FENCE</li> <li>CMIP = CORRUGATED METAL PIPE</li> <li>CONC = CONCRETE</li> <li>CR = CORNER</li> <li>C/PB = CONDOMINIUM PLAT BOOK</li> <li>C/SB = CONCRETE</li> <li>(D) = DEED DATA</li> <li>DEED BOOK</li> <li>DIP = DUCTILE IRON PIPE</li> <li>EDMP = ELLIPTICAL CORRUGATED METAL PIPE</li> <li>EL = ELEVATION</li> <li>EP = EDGE OF PAVEMENT</li> <li>ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE</li> <li>(F) = FIELD DATA</li> <li>F/M = FOUND CONCRETE MONUMENT</li> <li>FOT = FLORIDA DEPARTMENT OF TRANSPORTATION</li> <li>FR = FOUND IRON ROD</li> <li>FND = FOUND NAIL &amp; DISC</li> <li>FOP = FOUND OVER PIPE</li> <li>FPP = FOUND FINCHED PIPE</li> <li>FPS = FOUND RAINROOF SPIKE</li> <li>F/T = FENCE TIE</li> <li>F/C = FOUND X-CUT</li> <li>GE = GRADE ELEVATION</li> <li>G = INVERT ELEVATION</li> <li>(L) = LEGAL DESCRIPTION DATA</li> <li>LW = LICENSED BUSINESS</li> <li>LS = LICENSED SURVEYOR</li> <li>M/S = MASONRY</li> <li>MHW = MEAN HIGH WATER</li> <li>NP = NORMAL POOL</li> <li>O/A = OVERALL</li> <li>(O) = PLAT DATA</li> <li>PB = PLAT BOOK</li> <li>PG = PAGE</li> <li>PLS = PROFESSIONAL LAND SURVEYOR</li> <li>POB = POINT OF BEGINNING</li> <li>POC = POINT OF COMMENCEMENT</li> <li>PRM = PERMANENT REFERENCE MONUMENT</li> <li>PSM = PROFESSIONAL SURVEYOR &amp; MAPPER</li> <li>P/T = PAVEMENT</li> <li>PVC = POLY VINYL CHLORIDE</li> <li>R/W = REGISTERED CONCRETE PIPE</li> <li>R/S = REGISTERED LAND SURVEYOR</li> <li>SEC = SECTION</li> <li>SHW = SEASONAL HIGH WATER</li> <li>SR = SET IRON ROD 1/2" LB 6113</li> <li>SND = SET NAIL &amp; DISC LB 6113</li> <li>SR = STATE ROAD</li> <li>S/T = SIDEWALK</li> <li>SW = SIDEWALK</li> <li>TEM = TEMPORARY BENCH MARK</li> <li>(TYP) = TYPICAL</li> <li>W/P = WETTED CLAY PIPE</li> <li>W = WITH</li> <li>WF = WOOD FENCE</li> <li>W/T = WALL TIE</li> <li>+ 25.25 = POINT OF ELEVATION</li> <li>25.2' = DIMENSION FROM BUILDING TO BOUNDARY / RIGHT-OF-WAY LINE</li> <li>STORM CURB INLETS</li> <li>TOP OF BANK</li> <li>6" CHAIN LINK FENCE UNLESS OTHERWISE NOTED</li> <li>OVERHEAD UTILITY LINES</li> <li>APPROXIMATE LOCATION OF UNDERGROUND GAS LINE</li> <li>APPROXIMATE LOCATION OF UNDERGROUND WATER LINE</li> <li>APPROXIMATE LOCATION OF UNDERGROUND FORCE MAIN</li> <li>APPROXIMATE LOCATION OF UNDERGROUND RECLAIMED WATER LINE</li> <li>12" PVC</li> <li>APPROXIMATE LOCATION OF UNDERGROUND STORM SEWER LINE</li> </ul>	<ul style="list-style-type: none"> <li>BACKFLOW PREVENTER</li> <li>BOLLARD OR POST</li> <li>BOX CABLE TELEVISION</li> <li>BOX, ELECTRIC UTILITY</li> <li>BOX, ELECTRIC UTILITY (TRANSFORMER)</li> <li>BOX, TELEPHONE</li> <li>DEGRADED LIGHT POLE</li> <li>ELECTRIC OUTLET</li> <li>FIRE HYDRANT</li> <li>FLANGE</li> <li>FLARED END SECTION</li> <li>GAS INLET</li> <li>GROUND LIGHT</li> <li>SUV ANCHOR</li> <li>LIGHT POLE, CONCRETE</li> <li>LIGHT POLE, METAL</li> <li>LIGHT POLE, WOOD</li> <li>MALBOX</li> <li>MANHOLE, ELECTRIC</li> <li>MANHOLE, GREASE TRAP</li> <li>MANHOLE, SANITARY SEWER</li> <li>STORM SEWER STRUCTURE</li> <li>MANHOLE, TELEPHONE</li> <li>METER, ELECTRIC</li> <li>METER, GAS</li> <li>METER, RECLAIMED WATER</li> <li>METER, WATER</li> <li>METERED END SECTION</li> <li>MONITORING WELL</li> <li>PEDESTRIAN CROSSING SIGNAL</li> <li>SANITARY CLEANOUT</li> <li>SCHEDULE B-2 ITEM</li> <li>TELEPHONE RISER</li> <li>TRAFFIC SIGN</li> <li>TRAFFIC SIGNAL BOX</li> <li>TRAFFIC SIGNAL POLE</li> <li>UNDERGROUND CABLE TELEVISION MARKER</li> <li>UNDERGROUND CABLE TELEVISION WARNING SIGN</li> <li>UNDERGROUND ELECTRIC MARKER</li> <li>UNDERGROUND ELECTRIC WARNING SIGN</li> <li>UNDERGROUND FIBER OPTIC MARKER</li> <li>UNDERGROUND FIBER OPTIC WARNING SIGN</li> <li>UNDERGROUND FORCE MAIN MARKER</li> <li>UNDERGROUND FORCE MAIN WARNING SIGN</li> <li>UNDERGROUND GAS MARKER</li> <li>UNDERGROUND GAS WARNING SIGN</li> <li>UNDERGROUND RECLAIMED WATER MARKER</li> <li>UNDERGROUND RECLAIMED WATER WARNING SIGN</li> <li>UNDERGROUND SANITARY MARKER</li> <li>UNDERGROUND SANITARY WARNING SIGN</li> <li>UNDERGROUND SANITARY SEWER MARKER</li> <li>UNDERGROUND SANITARY SEWER WARNING SIGN</li> <li>UNDERGROUND WATER MARKER</li> <li>UNDERGROUND WATER MARKER</li> <li>UNDERGROUND WATER WARNING SIGN</li> <li>UTILITY POLE, CONCRETE</li> <li>UTILITY POLE, METAL</li> <li>UTILITY POLE, WOOD</li> <li>VALVE, GAS</li> <li>VALVE, RECLAIMED WATER</li> <li>VALVE, SANITARY</li> <li>VALVE, WATER</li> <li>WELL</li> <li>CONCRETE</li> <li>ASPHALT</li> <li>CONCRETE PAVERS</li> <li>BRICK</li> <li>5215 = BACK OF CURB</li> <li>5183 = EDGE OF PAVEMENT</li> </ul>
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**ENGINEER-OF-RECORD**

H. DUANE MILFORD  
P.E. # 42657

**CITY of TAMPA**  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

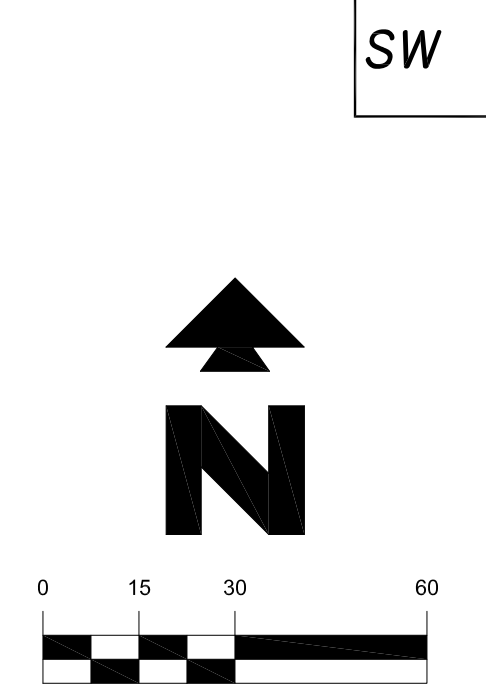
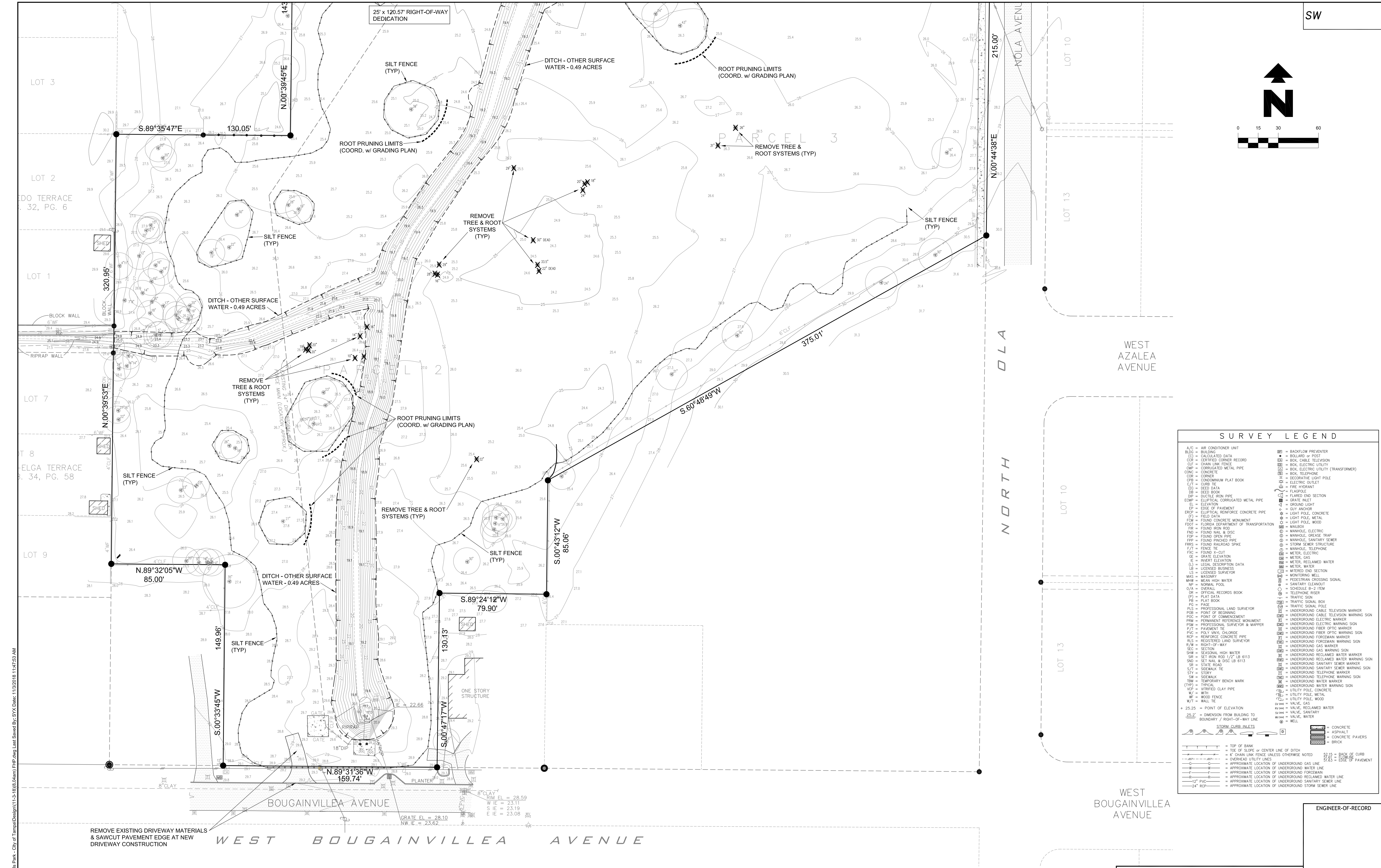
**MPH**  
CIVIL CONSULTANTS, INC.

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DES: HDM DRN: TLD CKD: HDM DATE: 11/7/18	<b>SHEET</b> 5 <b>OF</b> 21
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SURVEY LEGEND	
A/C = AIR CONDITIONER UNIT	BLK = BACKFLOW PREVENTER
BLDG = BUILDING	CD = CALCULATED DATA
CC = CERTIFIED CORNER RECORD	CR = CORRUGATED METAL PIPE
CH = CHAIN LINK FENCE	CP = CONCRETE
CM = CORRUGATED METAL PIPE	CR = CORNER
CMC = CONCRETE	CPB = CONDOMINIUM PLAT BOOK
CR = CORNER	C/T = CURB TIE
CPB = CONDOMINIUM PLAT BOOK	D = DEED DATA
C/T = CURB TIE	DB = DEED BOOK
D = DEED DATA	DIP = DUCTILE IRON PIPE
DB = DEED BOOK	EQM = ELLIPTICAL CORRUGATED METAL PIPE
DIP = DUCTILE IRON PIPE	EL = ELEVATION
EQM = ELLIPTICAL CORRUGATED METAL PIPE	EP = EDGE OF PAVEMENT
EL = ELEVATION	ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE
EP = EDGE OF PAVEMENT	FD = FIELD DATA
ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE	FDI = FLORIDA DEPARTMENT OF TRANSPORTATION FOUND ROAD RISK
FD = FIELD DATA	FDI = FLORIDA DEPARTMENT OF TRANSPORTATION FOUND ROAD RISK
FDI = FLORIDA DEPARTMENT OF TRANSPORTATION FOUND ROAD RISK	FND = FOUND NAIL & DISC
FDI = FLORIDA DEPARTMENT OF TRANSPORTATION FOUND ROAD RISK	FOP = FOUND OPEN PIPE
FND = FOUND NAIL & DISC	FRP = FOUND FINCHED PIPE
FOP = FOUND OPEN PIPE	FRS = FOUND RAILROAD SPIKE
FRP = FOUND FINCHED PIPE	F/T = FENCE TIE
FRS = FOUND RAILROAD SPIKE	FC = FOUND X-CUT
F/T = FENCE TIE	GE = GRATE ELEVATION
FC = FOUND X-CUT	I = INVERT ELEVATION
GE = GRATE ELEVATION	L = LEGAL DESCRIPTION DATA
I = INVERT ELEVATION	LS = LICENSED BUSINESS
L = LEGAL DESCRIPTION DATA	LS = LICENSED BUSINESS
LS = LICENSED BUSINESS	LS = LICENSED SURVEYOR
LS = LICENSED BUSINESS	M = MASONRY
LS = LICENSED SURVEYOR	M = MASONRY
M = MASONRY	MHW = MEAN HIGH WATER
M = MASONRY	N = NORMAL POOL
MHW = MEAN HIGH WATER	O/A = OVERALL
N = NORMAL POOL	O/A = OVERALL
O/A = OVERALL	OR = OFFICIAL RECORDS BOOK
O/A = OVERALL	P = PAGE
OR = OFFICIAL RECORDS BOOK	P = PAGE
P = PAGE	PLS = PROFESSIONAL LAND SURVEYOR
P = PAGE	PLS = PROFESSIONAL LAND SURVEYOR
PLS = PROFESSIONAL LAND SURVEYOR	POB = POINT OF BEGINNING
PLS = PROFESSIONAL LAND SURVEYOR	POC = POINT OF COMMENCEMENT
POB = POINT OF BEGINNING	PRM = PERMANENT REFERENCE MONUMENT
POC = POINT OF COMMENCEMENT	PRM = PERMANENT REFERENCE MONUMENT
PRM = PERMANENT REFERENCE MONUMENT	PSM = PROFESSIONAL SURVEYOR & MAPPER
PRM = PERMANENT REFERENCE MONUMENT	P/T = PAVEMENT TIE
PSM = PROFESSIONAL SURVEYOR & MAPPER	PVC = POLY VINYL CHLORIDE
P/T = PAVEMENT TIE	RF = REINFORCED CONCRETE PIPE
PVC = POLY VINYL CHLORIDE	RLS = REGISTERED LAND SURVEYOR
RF = REINFORCED CONCRETE PIPE	R/W = RIGHT-OF-WAY
RLS = REGISTERED LAND SURVEYOR	SEC = SECTION
R/W = RIGHT-OF-WAY	SEC = SECTION
SEC = SECTION	SHW = SEASONAL HIGH WATER
SEC = SECTION	SR = SET IRON ROD 1/2" LB 6113
SHW = SEASONAL HIGH WATER	SND = SET NAIL & DISC LB 6113
SR = SET IRON ROD 1/2" LB 6113	SR = STATE ROAD
SND = SET NAIL & DISC LB 6113	S/T = SIDEWALK TIE
SR = STATE ROAD	STY = STORY
S/T = SIDEWALK TIE	SW = SIDEWALK
STY = STORY	TM = TEMPORARY BENCH MARK
SW = SIDEWALK	TM = TEMPORARY BENCH MARK
TM = TEMPORARY BENCH MARK	W/P = WITNESSED PLY PIPE
TM = TEMPORARY BENCH MARK	W = WITH
W/P = WITNESSED PLY PIPE	W = WITH
W = WITH	WF = WOOD FENCE
W = WITH	W/T = WALL TIE
WF = WOOD FENCE	W/T = WALL TIE
W/T = WALL TIE	+ 25.25 = POINT OF ELEVATION
W/T = WALL TIE	+ 25.25 = POINT OF ELEVATION
	25.2' = DIMENSION FROM BUILDING TO BOUNDARY / RIGHT-OF-WAY LINE
	25.2' = DIMENSION FROM BUILDING TO BOUNDARY / RIGHT-OF-WAY LINE
	CONCRETE
	ASPHALT
	CONCRETE PAVERS
	BRICK
	TOP OF BANK
	TOE OF SLOPE w/ CENTER LINE OF DITCH
	6" CHAIN LINK FENCE UNLESS OTHERWISE NOTED
	OVERHEAD UTILITY LINES
	APPROXIMATE LOCATION OF UNDERGROUND GAS LINE
	APPROXIMATE LOCATION OF UNDERGROUND WATER LINE
	APPROXIMATE LOCATION OF UNDERGROUND FORCEMAIN
	APPROXIMATE LOCATION OF UNDERGROUND RECLAIMED WATER LINE
	APPROXIMATE LOCATION OF UNDERGROUND SANITARY SEWER LINE
	APPROXIMATE LOCATION OF UNDERGROUND STORM SEWER LINE
	52.15 = BACK OF CURB
	51.83 = EDGE OF PAVEMENT

DEMOLITION PLAN - SOUTH  
ENGINEER-OF-RECORD

H. DUANE MILFORD  
P.E. # 42657

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: HDM  
DRN: TLD  
CKD: HDM  
DATE: 11/7/18

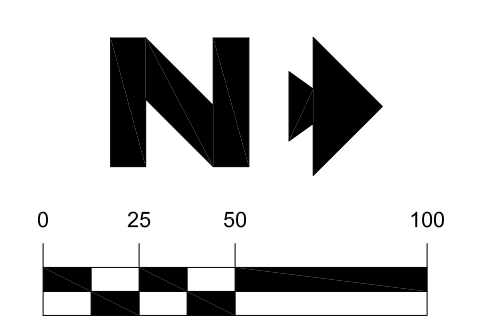
CITY of TAMPA  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

MPH  
CIVIL CONSULTANTS, INC.

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Odessa, Florida 33556  
Phone: 813.731.0052  
duane@mphcivil.com  
Florida CA No.: 30727

SHEET  
6  
OF  
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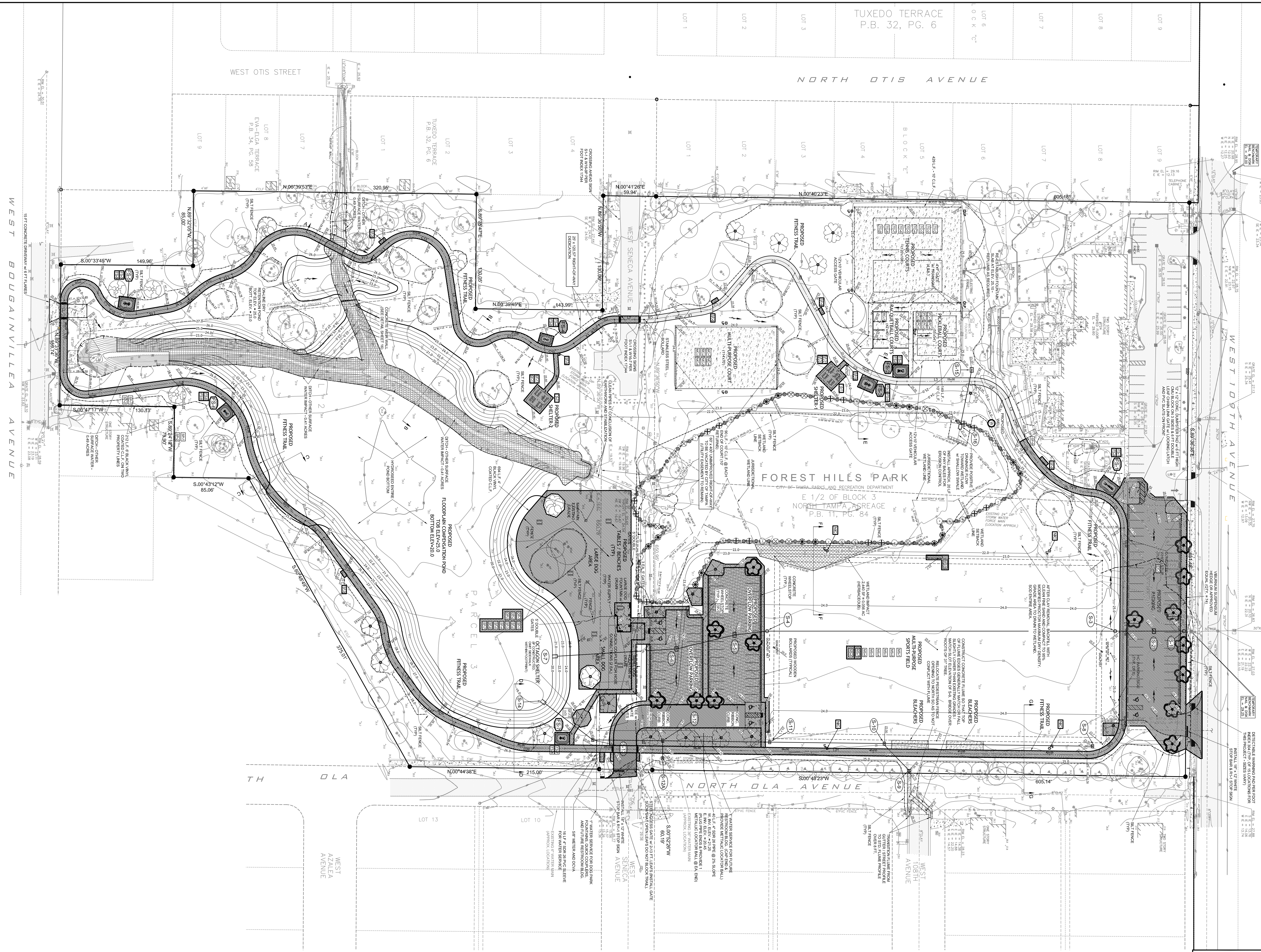


**SITE LEGEND**

- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING JURISDICTIONAL LINE
- EXISTING TREE (TO REMAIN)
- PROPOSED CONCRETE
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- PROPOSED BALD CYPRESS (BC)(14)
- PROPOSED LIVE OAK (LO)(14)
- PROPOSED DOGWOOD (DW)(3)
- PROPOSED SOUTHERN MAGNOLIA (MAG)(9)
- PROPOSED FLATWOODS PLUM (FWP)(3)
- PROPOSED WAX MYRTLE (WM)(76)
- PROPOSED MUHLY GRASS (MG)(250)
- PROPOSED WELL - SEE SHEET 2, IRRIGATION SPECIFICATIONS
- NOT IN THIS CONTRACT
- NOT IN THIS CONTRACT

**CROSS-HATCHED IMPROVEMENT NOTES**

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

DES: HDM  
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 CKD: HDM  
 DATE: 11/7/18

**CITY of TAMPA**  
 Department of Transportation  
 and Stormwater Services  
 Stormwater Engineering Division

PARK IMPROVEMENT PLAN - OVERALL



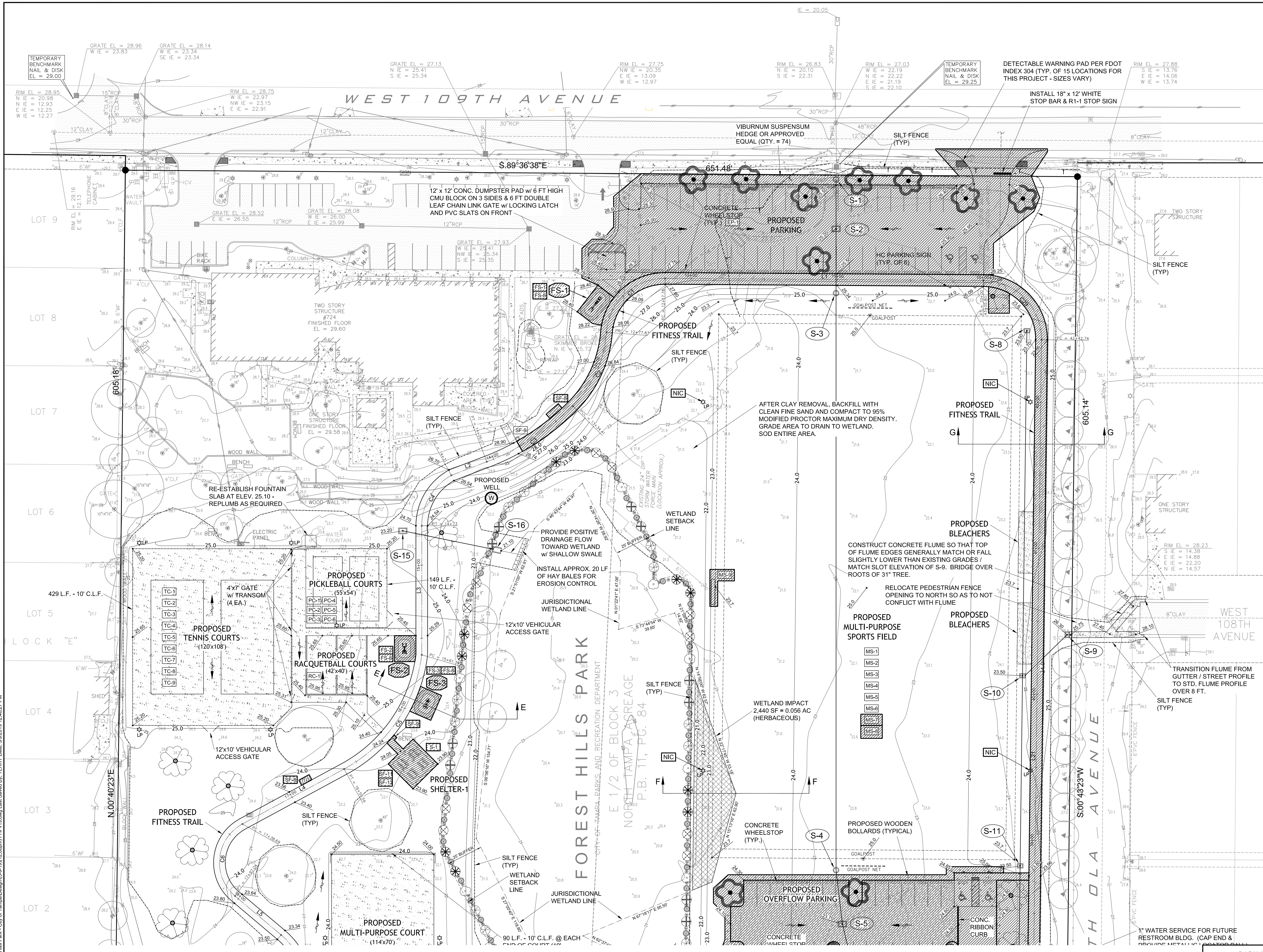
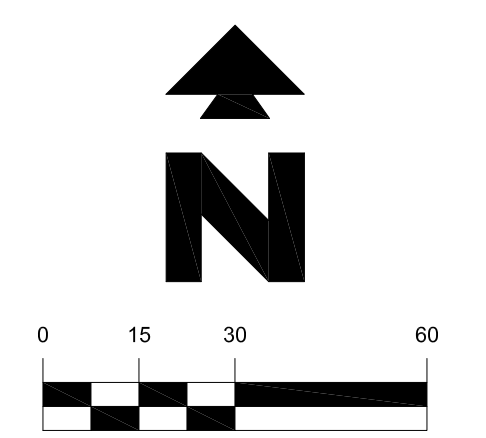
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 Phone: 813.731.0052  
 duane@mphcivil.com  
 Florida CA No.: 30727

ENGINEER-OF-RECORD

H. DUANE MILFORD  
 P.E. # 42657

SHEET  
**7**  
 OF 22





- SITE LEGEND**
- EXISTING CONCRETE
  - EXISTING ASPHALT
  - EXISTING CONTOUR
  - EXISTING SPOT ELEVATION
  - EXISTING JURISDICTIONAL LINE
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**CITY of TAMPA**  
 Department of Transportation  
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 Stormwater Engineering Division

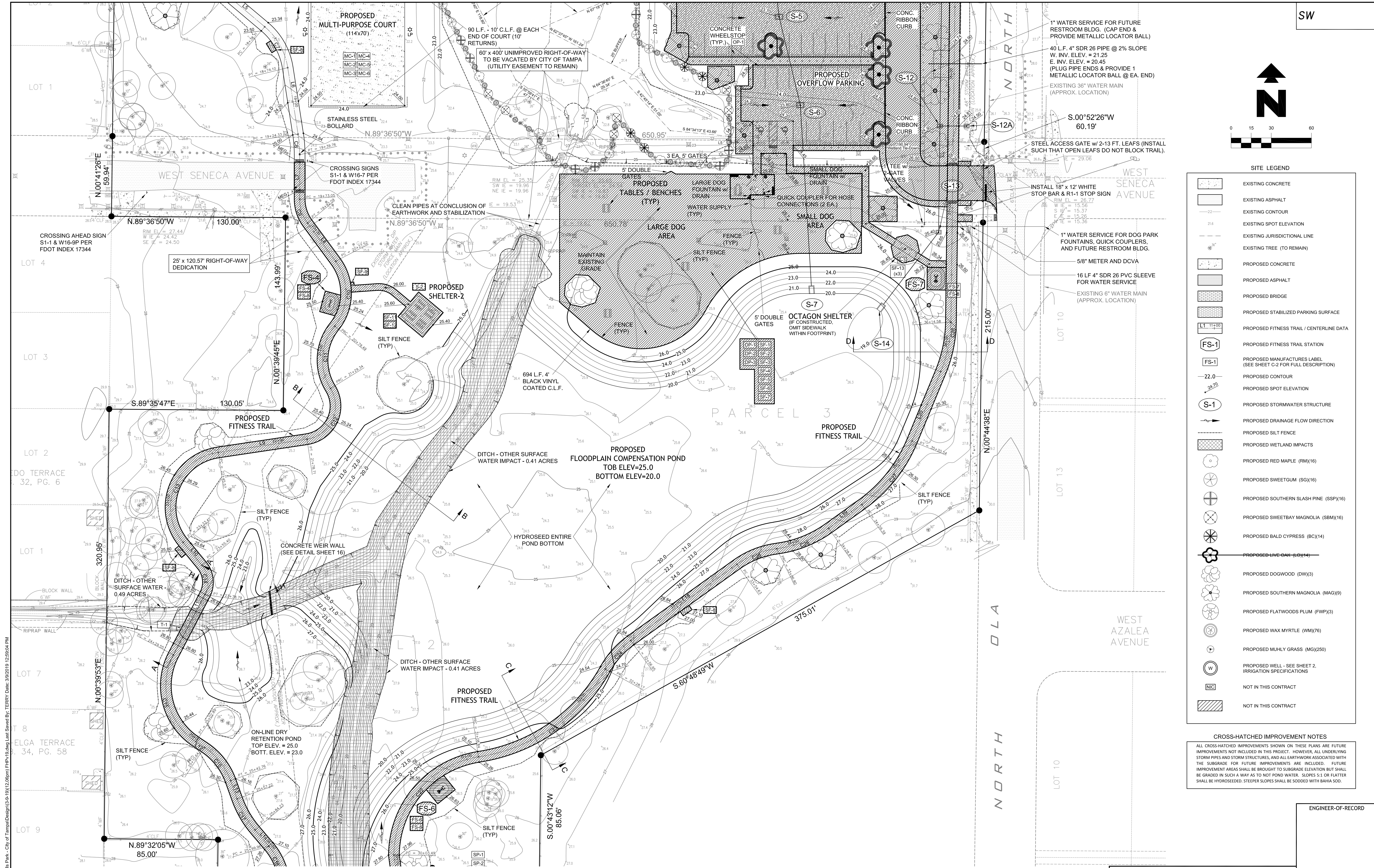
**PARK IMPROVEMENT PLAN - NORTH**



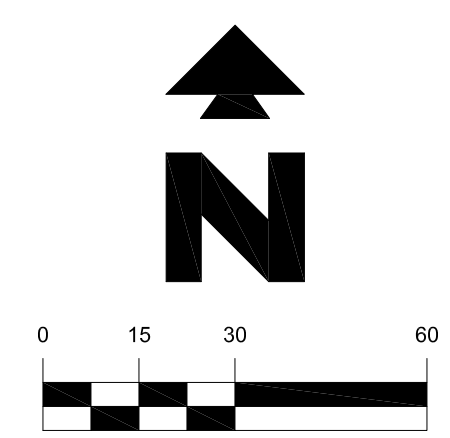
ENGINEER-OF-RECORD  
 H. DUANE MILFORD  
 P.E. # 42657

SHEET  
**8**  
 OF 22

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SW



- SITE LEGEND**
- EXISTING CONCRETE
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H. DUANE MILFORD  
P.E. # 42657

PARK IMPROVEMENT PLAN - CENTRAL

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1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

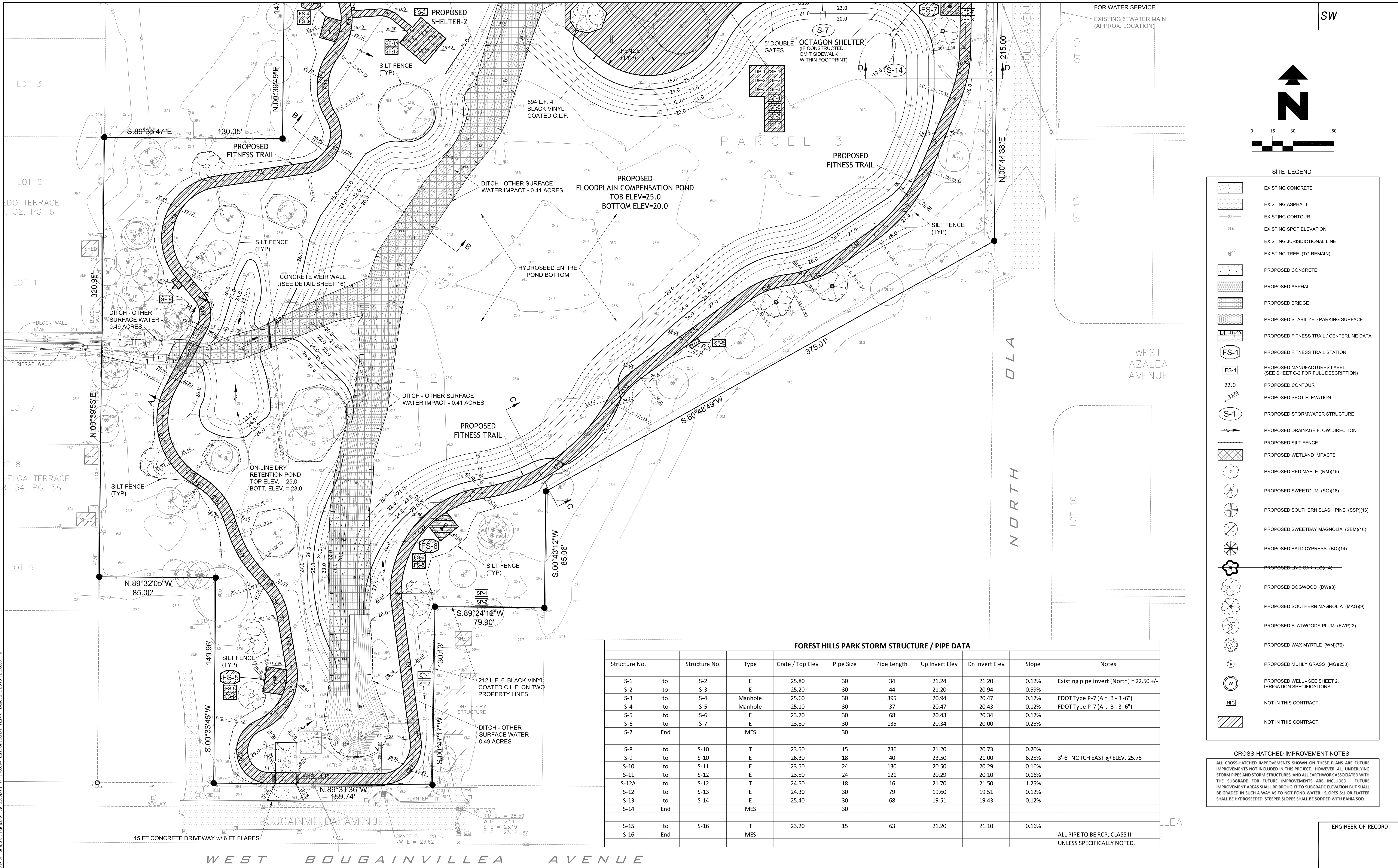
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DRN: TLD  
CKD: HDM  
DATE: 11/7/18

**CITY of TAMPA**  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

**MPH**  
CIVIL CONSULTANTS, INC.  
P.O. Box  
Odessa, Florida 33556  
Phone: 813.731.0052  
duane@mphcivil.com  
Florida CA No.: 30727

SHEET  
**9**  
OF  
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- SITE LEGEND**
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  - NOT IN THIS CONTRACT
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**FOREST HILLS PARK STORM STRUCTURE / PIPE DATA**

Structure No.	Structure No.	Type	Grate / Top Elev	Pipe Size	Pipe Length	Up Invert Elev	Cn Invert Elev	Slope	Notes
S-1	to S-2	E	25.80	30	34	21.24	21.20	0.12%	Existing pipe invert (North) = 22.50 +/-
S-2	to S-3	E	25.20	30	44	21.20	20.94	0.59%	
S-3	to S-4	Manhole	25.60	30	395	20.94	20.47	0.12%	FDOT Type P-7 (Alt. B - 3'-6")
S-4	to S-5	Manhole	25.10	30	37	20.47	20.43	0.12%	FDOT Type P-7 (Alt. B - 3'-6")
S-5	to S-6	E	23.70	30	68	20.43	20.34	0.12%	
S-6	to S-7	E	23.80	30	135	20.34	20.00	0.25%	
S-7	End	MES		30					
S-8	to S-10	T	23.50	15	236	21.20	20.73	0.20%	
S-9	to S-10	E	26.30	18	40	23.50	21.00	6.25%	3'-6" NOTCH EAST @ ELEV. 25.75
S-10	to S-11	E	23.50	24	130	20.50	20.29	0.16%	
S-11	to S-12	E	23.50	24	121	20.29	20.10	0.16%	
S-12A	to S-12	T	24.50	18	16	21.70	21.50	1.25%	
S-12	to S-13	E	24.30	30	79	19.60	19.51	0.12%	
S-13	to S-14	E	25.40	30	68	19.51	19.43	0.12%	
S-14	End	MES		30					
S-15	to S-16	T	23.20	15	63	21.20	21.10	0.16%	
S-16	End	MES							ALL PIPE TO BE RCP, CLASS III UNLESS SPECIFICALLY NOTED.

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ENGINEER-OF-RECORD

H. DUANE MILFORD  
P.E. # 42657

PARK IMPROVEMENT PLAN - SOUTH

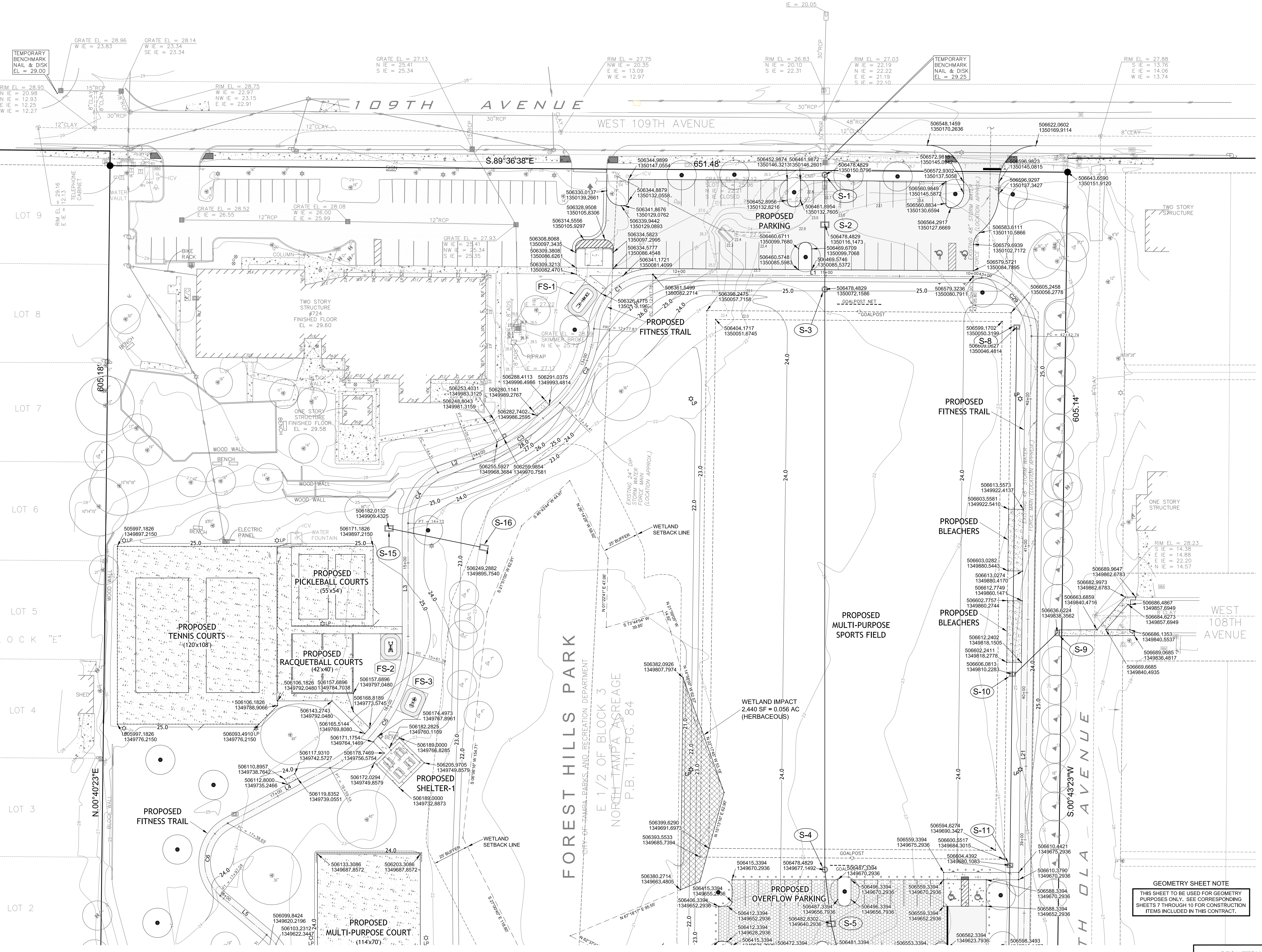
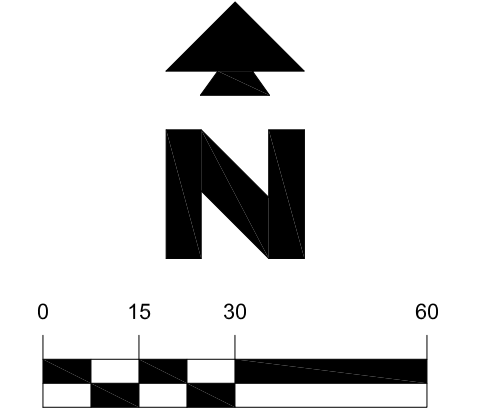
**MPH CIVIL CONSULTANTS, INC.**  
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Florida CA No.: 30727

SHEET  
**10**  
OF  
**21**

No.	DATE	REVISIONS	No.	DATE	REVISIONS	DES:	HDM
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**CITY of TAMPA**  
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**SITE LEGEND**

- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING CONTOUR
- EXISTING JURISDICTIONAL LINE
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- PROPOSED TREES
- PROPOSED WETLAND IMPACTS

**GEOMETRY COORDINATES LABELS**  
 506598.3493 NORTHING  
 1349615.1427 EASTING

**TRAIL CENTERLINE LINE TABLE**

LINE	LENGTH	BEARING
L1	217.78	N89°36'36"W
L2	25.92	S69°05'10"W
L3	86.39	S00°00'00"W
L4	73.16	S61°34'16"W
L5	41.27	S49°51'40"E
L6	50.22	S08°50'41"E
L7	33.29	S00°00'00"W
L8	35.42	S82°15'22"E
L9	66.86	S81°30'22"W
L10	21.99	S39°26'41"E
L11	59.76	S27°33'14"W
L12	7.75	S58°29'39"E
L13	14.46	S19°41'32"E
L14	15.73	S40°19'45"E
L15	36.20	S09°36'36"E
L16	81.74	S89°31'19"E
L17	106.04	N07°44'23"W
L18	97.68	N54°21'03"E
L19	30.51	N54°21'03"E
L20	69.04	N22°30'00"E
L21	628.16	N00°43'23"E

**TRAIL CENTERLINE CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
C1	40.00	60.05	86°00'42"	54.57	S47°23'01"W
C2	80.07	56.58	40°29'11"	55.41	N24°37'15"E
C3	167.16	70.67	24°13'20"	70.14	N68°56'30"E
C4	39.50	42.01	80°56'44"	40.05	S30°20'07"W
C5	102.73	98.14	54°44'13"	94.45	N34°12'10"E
C6	30.00	58.35	111°29'56"	49.58	S05°51'18"W
C7	50.00	35.79	41°05'38"	35.03	S03°46'48"W
C8	100.00	15.44	8°50'41"	15.42	N04°25'21"W
C9	30.00	18.04	36°21'52"	18.72	S18°10'56"E
C10	40.01	51.98	74°25'53"	48.40	N00°5'12"E
C11	40.30	49.84	70°51'59"	46.73	S03°46'48"W
C12	25.00	49.37	113°09'22"	41.73	N24°55'41"E
C13	41.36	87.84	121°40'35"	72.24	S21°23'36"W
C14	20.00	23.39	66°59'55"	22.08	N05°56'44"W
C15	50.00	73.36	54°02'53"	66.94	S14°22'13"E
C16	50.00	32.12	36°48'07"	31.57	N38°05'35"W
C17	75.00	27.01	20°38'13"	26.87	S30°00'38"E
C18	50.00	26.80	30°42'49"	26.48	N24°58'20"W
C19	40.00	53.33	70°52'28"	49.47	N38°34'47"E
C20	20.00	54.56	156°18'09"	39.15	S11°22'33"E
C21	25.00	42.85	98°12'48"	37.80	N41°22'01"E
C22	74.64	105.36	80°52'27"	96.82	S40°42'26"W
C23	130.00	119.33	52°35'36"	115.18	N51°16'40"E
C24	65.00	28.78	25°22'11"	28.55	S41°39'57"W
C25	65.00	32.17	28°21'27"	31.84	S68°31'47"W
C26	85.00	42.07	28°21'27"	41.84	N88°31'47"E
C27	110.00	61.15	31°15'03"	60.36	N38°25'31"E
C28	100.00	38.01	21°46'37"	37.78	N11°36'41"E
C29	40.00	63.06	90°20'01"	56.73	N44°26'38"W

**GEOMETRY SHEET NOTE**  
 THIS SHEET TO BE USED FOR GEOMETRY PURPOSES ONLY. SEE CORRESPONDING SHEETS 7 THROUGH 10 FOR CONSTRUCTION ITEMS INCLUDED IN THIS CONTRACT.

**WETLAND LINE TABLE**

LINE	LENGTH	BEARING
L1	14.45	S03°33'52"E
L2	9.45	S72°04'04"E
L3	31.49	N08°45'10"E
L4	7.70	N00°17'49"E
L5	3.00	S00°21'00"W

**ENGINEER-OF-RECORD**  
 H. DUANE MILFORD  
 P.E. # 42657

**GEOMETRY COORDINATES PLAN - NORTH**

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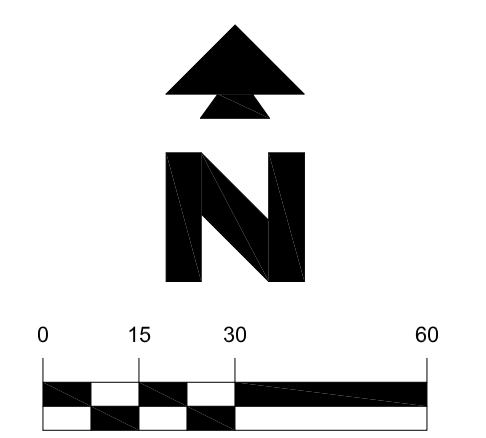
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**SHEET**  
 11  
**OF**  
 21

SW



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L8	35.42	S38°21'52"E
L9	66.88	S81°30'22"W
L10	21.99	S39°26'41"E
L11	50.76	S27°33'14"W
L12	7.75	S58°29'39"E
L13	14.46	S19°41'32"E
L14	16.73	S40°19'45"E
L15	36.20	S09°36'36"E
L16	81.74	S89°31'19"E
L17	108.04	N07°44'23"W
L18	97.68	N54°21'03"E
L19	30.51	N54°21'03"E
L20	69.04	N22°30'00"E
L21	628.16	N00°43'23"E

**TRAIL CENTERLINE CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
C1	40.00	60.05	86°00'42"	54.57	S47°23'01"W
C2	80.07	56.58	40°29'11"	55.41	N24°37'15"E
C3	107.16	70.67	24°13'20"	70.14	N68°56'30"E
C4	39.50	42.01	80°56'14"	40.05	S30°29'07"W
C5	102.73	98.14	54°44'13"	94.45	N34°12'10"E
C6	30.00	58.35	111°29'56"	49.58	S05°51'18"W
C7	50.00	35.79	41°05'58"	35.03	N29°21'10"W
C8	100.00	15.44	8°50'41"	15.42	N04°25'21"W
C9	30.00	18.04	36°21'52"	18.72	S18°10'56"E
C10	40.01	51.98	74°25'53"	48.40	N00°51'22"E
C11	40.30	49.84	70°51'39"	46.73	S03°46'48"W
C12	25.00	49.37	113°09'22"	41.73	N24°55'41"E
C13	41.36	87.84	121°40'35"	72.24	S21°23'36"W
C14	20.00	23.39	66°59'55"	22.08	N05°56'44"W
C15	50.00	73.35	84°02'53"	66.94	S14°28'13"E
C16	50.00	32.12	36°48'07"	31.57	N38°05'35"W
C17	75.00	27.01	20°38'13"	26.87	S30°00'38"E
C18	50.00	26.80	30°42'49"	26.48	N24°58'20"W
C19	40.00	53.33	78°52'28"	49.47	N08°34'47"E
C20	20.00	54.56	156°18'09"	39.15	S11°22'33"E
C21	25.00	42.85	98°12'48"	37.80	N41°22'01"E
C22	74.64	105.36	80°52'27"	96.82	S40°42'26"W
C23	130.00	119.33	52°35'36"	115.18	N51°16'40"E
C24	65.00	32.17	28°21'27"	31.84	S68°31'47"W
C25	65.00	42.07	28°21'27"	41.64	N68°31'47"E
C26	110.00	61.15	31°15'03"	60.36	N38°25'31"E
C27	100.00	38.01	21°46'37"	37.78	N11°36'41"E
C28	40.00	63.06	90°20'01"	56.73	N44°26'38"W

**GEOMETRY SHEET NOTE**

THIS SHEET TO BE USED FOR GEOMETRY PURPOSES ONLY. SEE CORRESPONDING SHEETS 7 THROUGH 10 FOR CONSTRUCTION ITEMS INCLUDED IN THIS CONTRACT.

**WETLAND LINE TABLE**

LINE	LENGTH	BEARING
L1	14.45	S03°33'52"E
L2	9.45	S72°04'04"E
L3	31.49	N08°45'10"E
L4	7.70	N08°17'49"E
L5	3.00	S00°23'10"W

ENGINEER-OF-RECORD

H. DUANE MILFORD  
P.E. # 42657

GEOMETRY COORDINATES PLAN - CENTRAL

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

DES: TLD  
DRN: HDM  
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DATE: 11/7/18

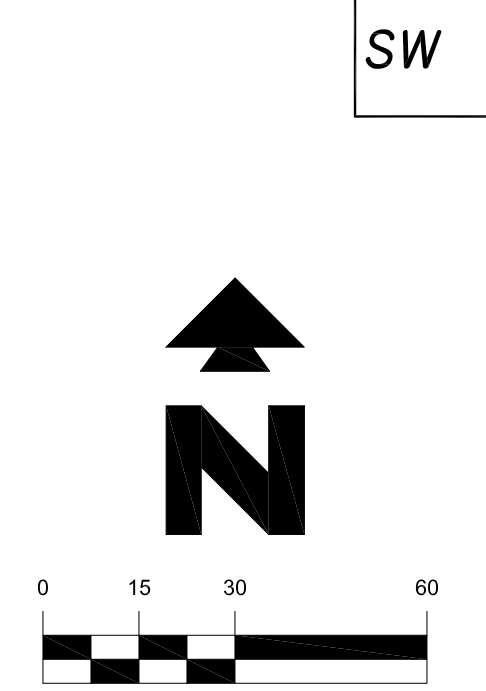
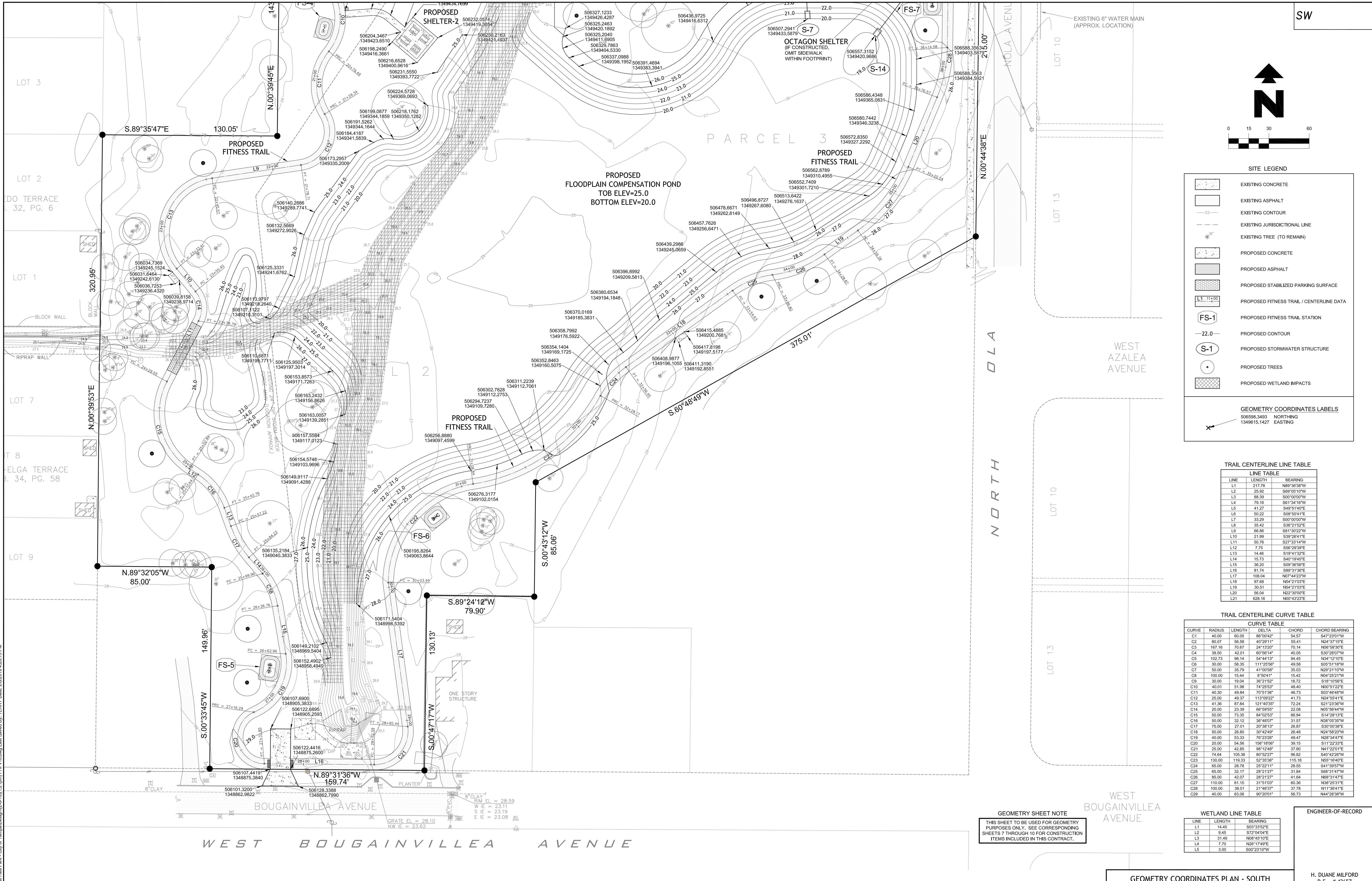
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Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division



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Phone: 813.731.0052  
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Florida CA No.: 30727

SHEET  
12  
OF  
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Filename: D:\2017\Forest Hills Park - City of Tampa\Design\2-8-19\12.dwg Last Saved By: TERRY Date: 2/8/2019 4:26:13 PM



**SITE LEGEND**

- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING CONTOUR
- EXISTING JURISDICTIONAL LINE
- EXISTING TREE (TO REMAIN)
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPOSED STABILIZED PARKING SURFACE
- PROPOSED FITNESS TRAIL / CENTERLINE DATA
- PROPOSED FITNESS TRAIL STATION
- PROPOSED CONTOUR
- PROPOSED STORMWATER STRUCTURE
- PROPOSED TREES
- PROPOSED WETLAND IMPACTS

**GEOMETRY COORDINATES LABELS**

506598.3493 NORTHING  
1349615.1427 EASTING

**TRAIL CENTERLINE LINE TABLE**

LINE	LENGTH	BEARING
L1	217.78	N89°36'36"W
L2	25.92	S69°05'10"W
L3	88.39	S00°00'00"W
L4	73.16	S61°34'16"W
L5	41.27	S49°51'40"E
L6	50.22	S08°50'41"E
L7	33.29	S00°00'00"W
L8	35.42	S58°23'09"E
L9	66.88	S81°30'22"W
L10	21.99	S39°26'41"E
L11	59.76	S27°33'14"W
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L16	81.74	S89°31'19"E
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L18	97.68	N54°21'03"E
L19	30.51	N54°21'03"E
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C3	167.16	70.67	24°13'20"	70.14	N56°56'30"E
C4	39.50	42.01	80°56'44"	40.05	S30°28'07"W
C5	102.73	98.14	54°44'13"	94.45	N34°12'10"E
C6	30.00	58.35	111°25'56"	49.58	S05°51'18"W
C7	50.00	35.79	41°05'58"	35.03	N29°21'10"W
C8	100.00	15.44	8°50'41"	15.42	N04°25'21"W
C9	30.00	18.04	36°21'52"	18.72	S18°10'56"E
C10	40.01	51.98	74°25'53"	48.40	N00°51'22"E
C11	40.30	49.84	70°51'39"	46.73	S03°46'46"W
C12	25.00	49.37	113°09'22"	41.73	N24°55'41"E
C13	41.36	87.84	121°40'35"	72.24	S21°23'36"W
C14	20.00	23.39	66°59'55"	22.08	N05°56'44"W
C15	50.00	73.36	94°03'23"	66.94	S14°22'13"E
C16	50.00	32.12	36°48'07"	31.57	N38°05'35"W
C17	75.00	27.01	20°38'13"	26.87	S30°00'38"E
C18	50.00	26.80	30°42'49"	26.48	N24°58'20"W
C19	40.00	53.33	78°22'28"	49.47	N08°34'47"E
C20	20.00	54.56	156°18'06"	39.15	S11°22'33"E
C21	25.00	42.85	98°12'48"	37.80	N41°22'01"E
C22	74.64	105.36	80°52'27"	96.82	S40°42'26"W
C23	130.00	119.33	52°36'38"	115.18	N51°16'40"E
C24	65.00	28.78	25°22'11"	28.55	S41°39'57"W
C25	65.00	32.17	28°21'27"	31.84	S68°31'47"W
C26	85.00	42.07	28°21'27"	41.84	N88°31'47"E
C27	110.00	61.15	31°51'03"	60.36	N38°25'31"E
C28	100.00	38.01	21°46'37"	37.78	N11°36'41"E
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**WETLAND LINE TABLE**

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L4	7.70	N08°17'49"E
L5	3.00	S00°21'10"W

**ENGINEER-OF-RECORD**

H. DUANE MILFORD  
P.E. # 42657

**GEOMETRY COORDINATES PLAN - SOUTH**

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

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DRN: TLD  
CKD: HDM  
DATE: 11/7/18

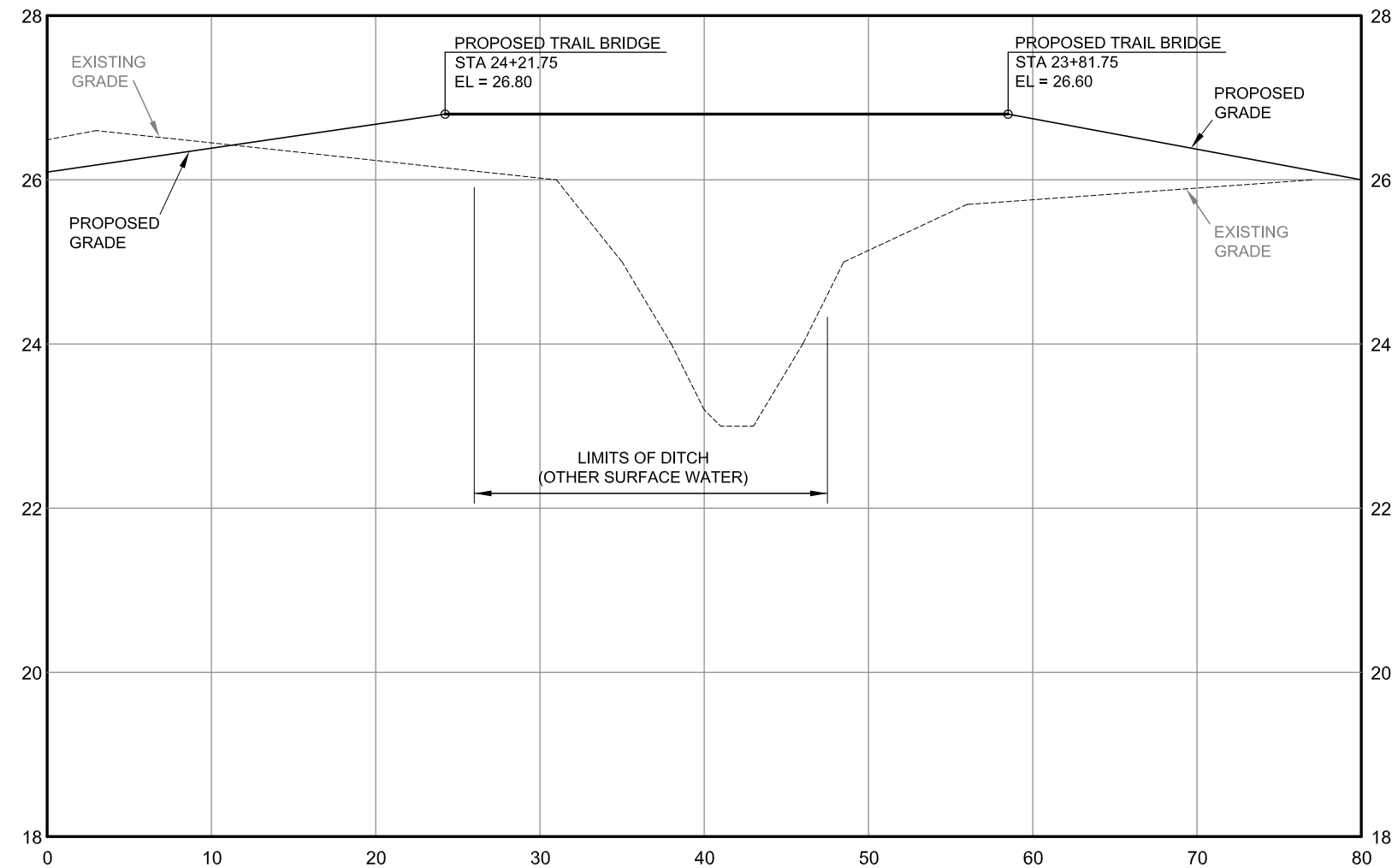
**CITY of TAMPA**  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

**MPH**  
CIVIL CONSULTANTS, INC.

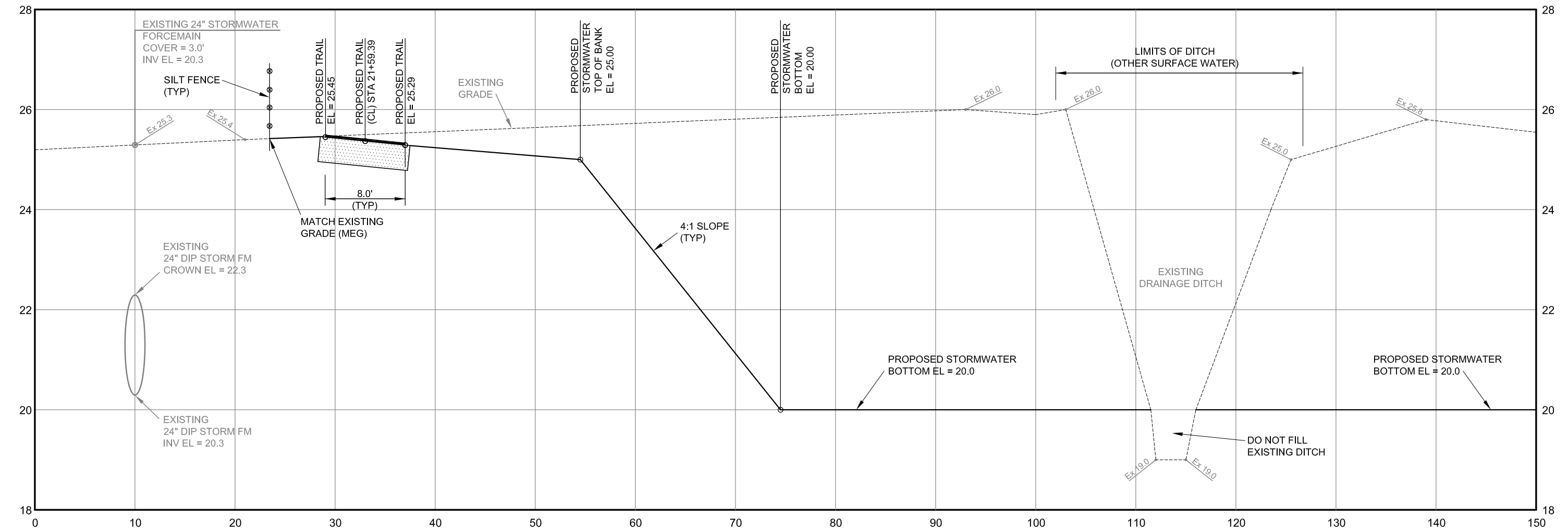
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Odessa, Florida 33556  
Phone: 813.731.0052  
duane@mphcivil.com  
Florida CA No.: 30727

SHEET  
**13**  
OF  
**21**

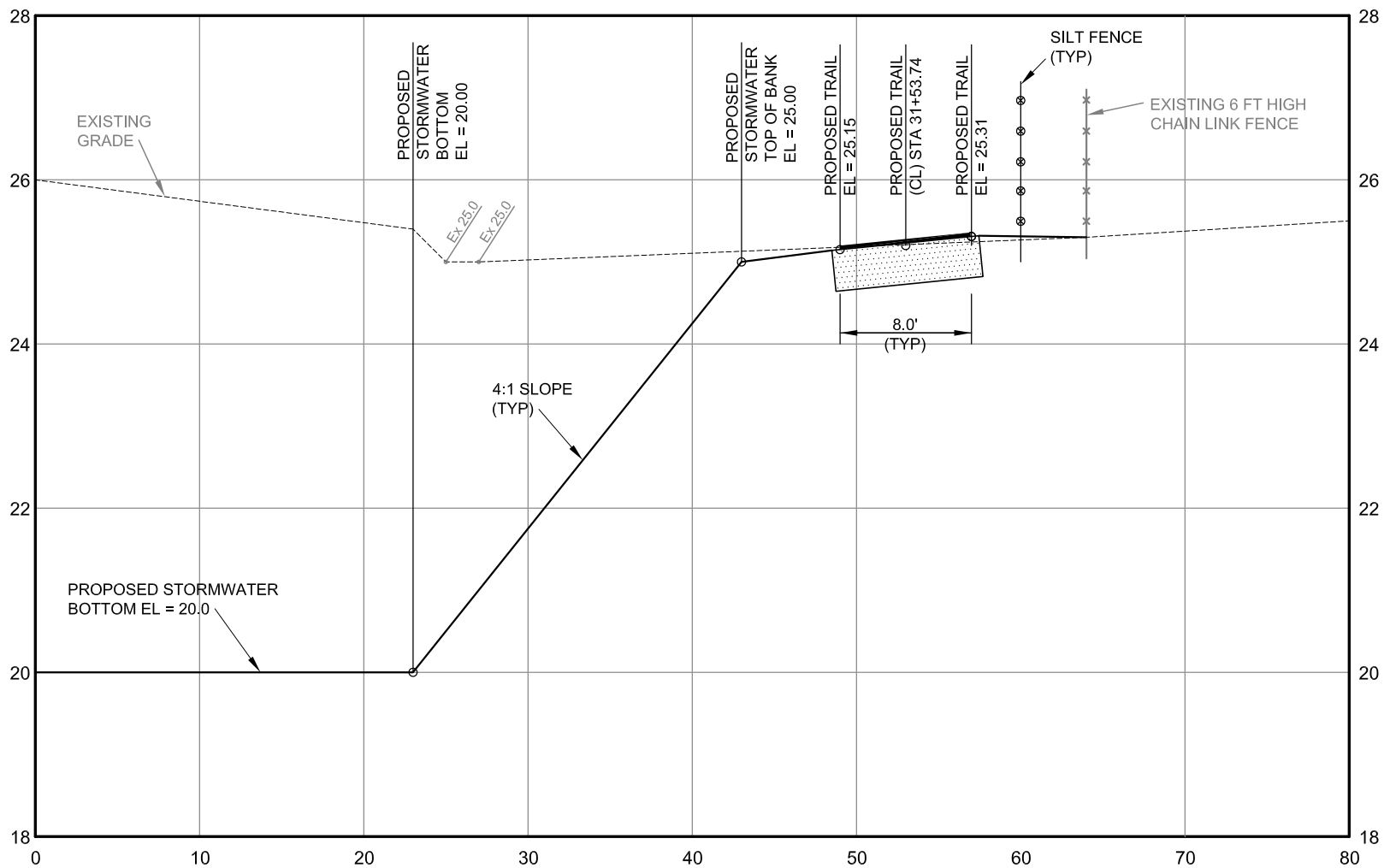
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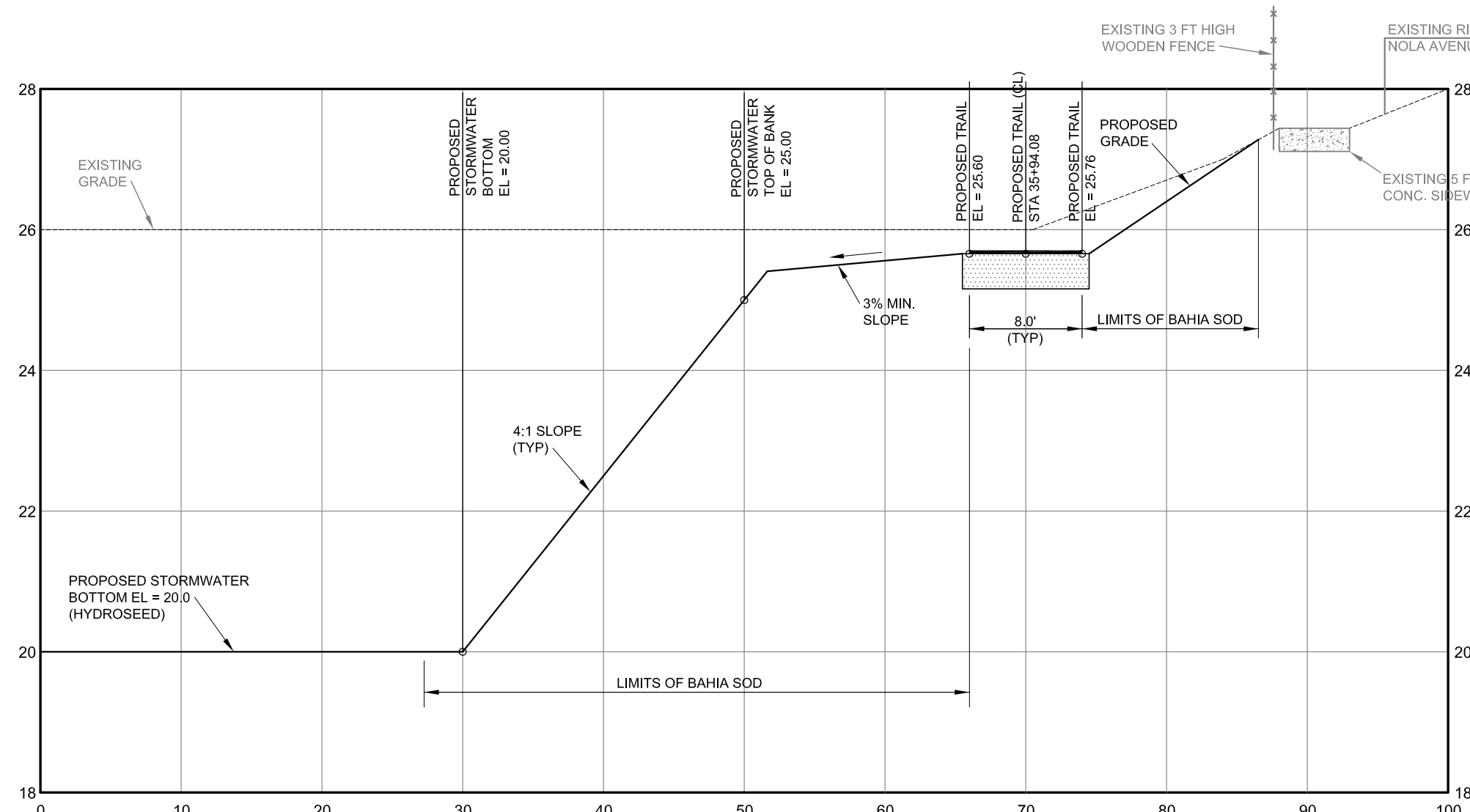
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1" = 2' VERTICAL



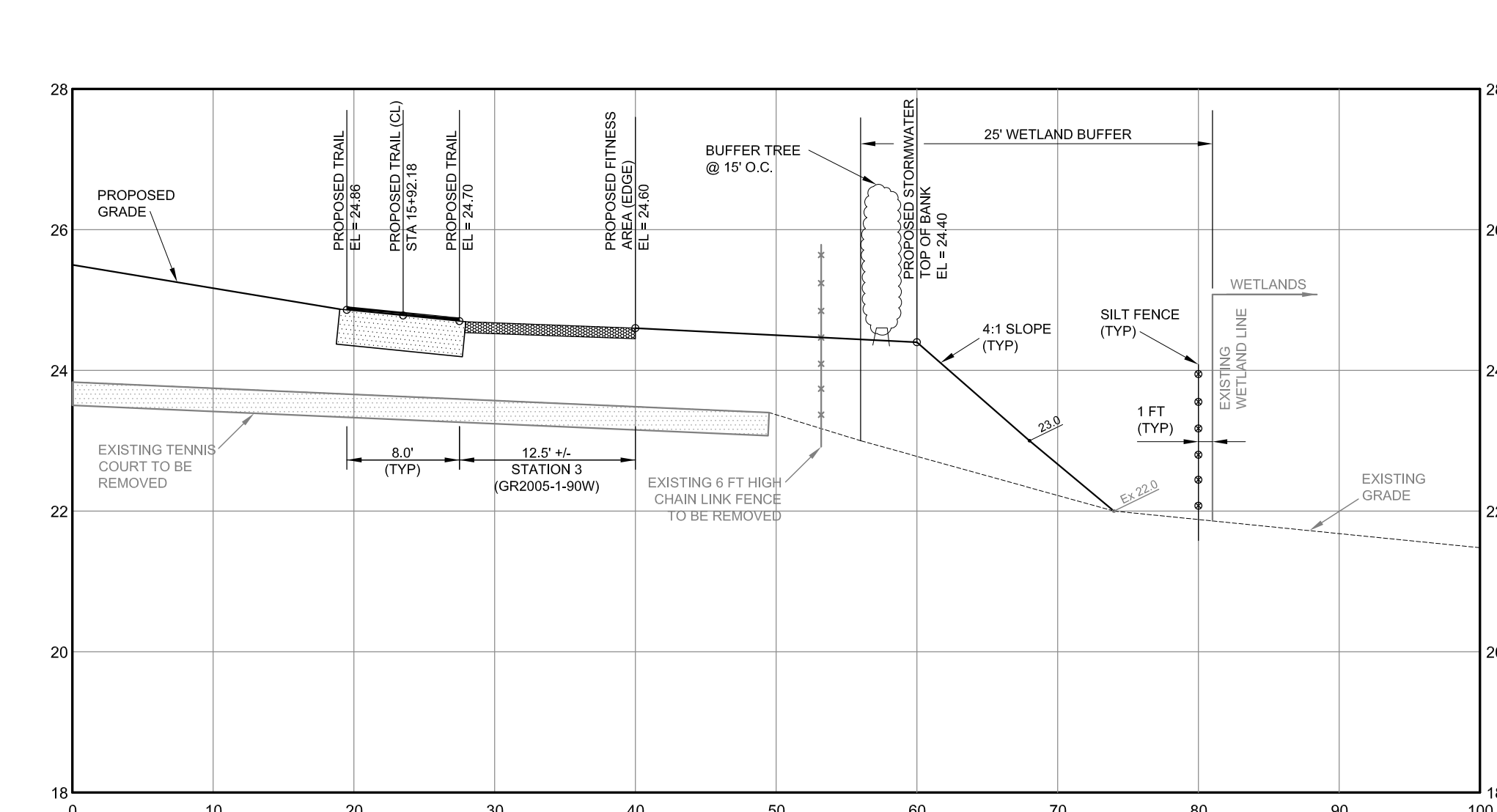
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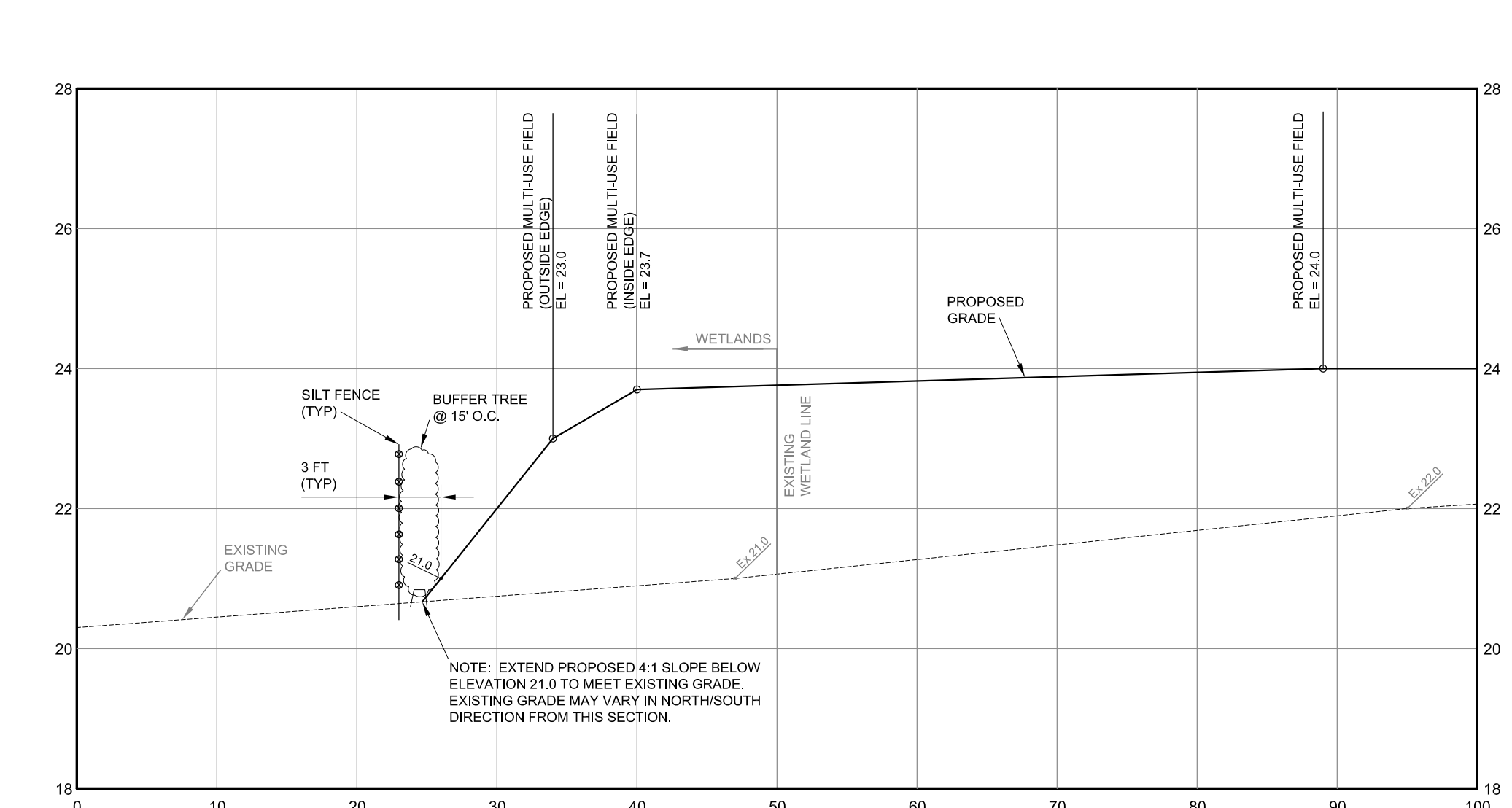
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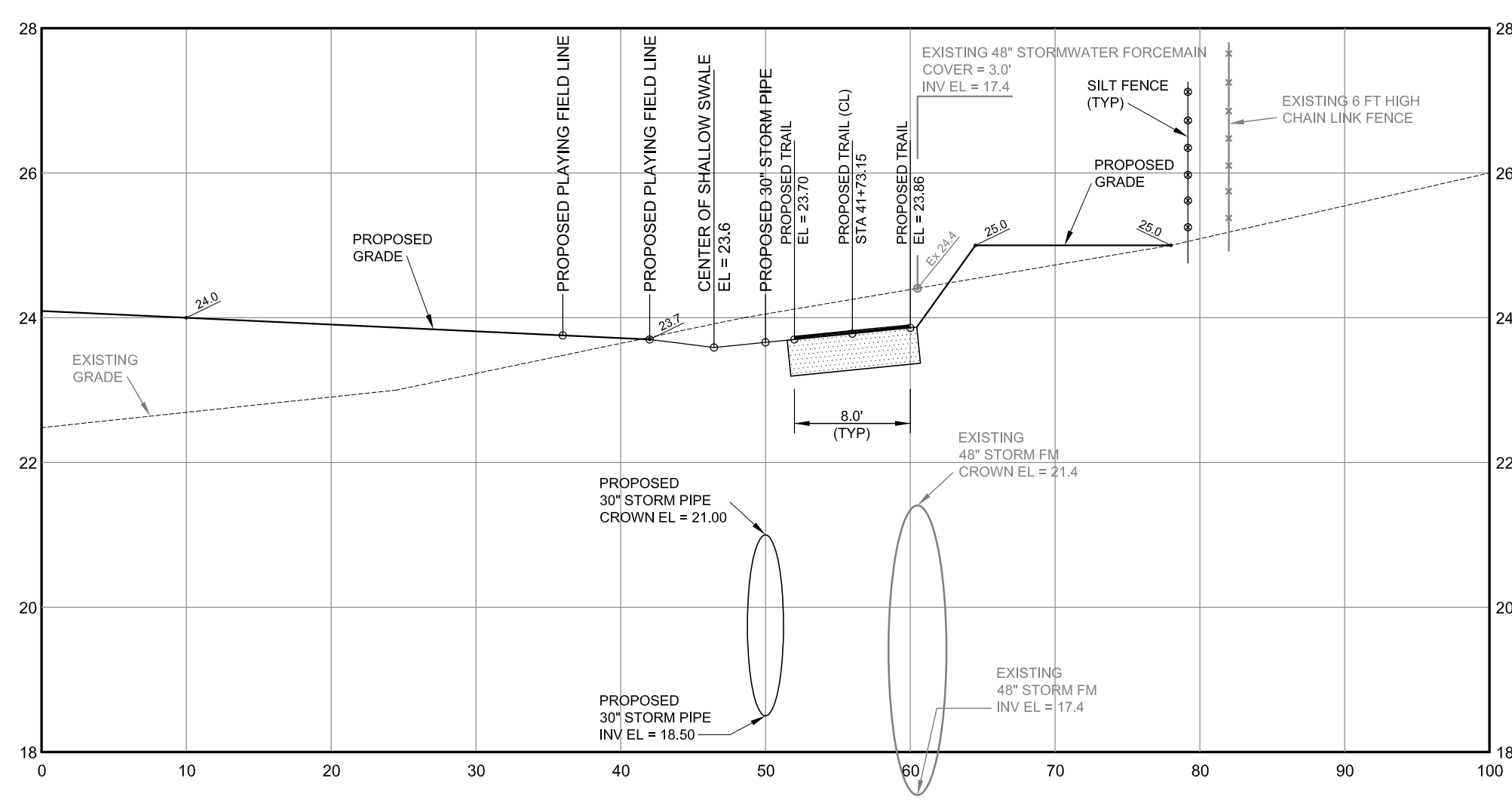
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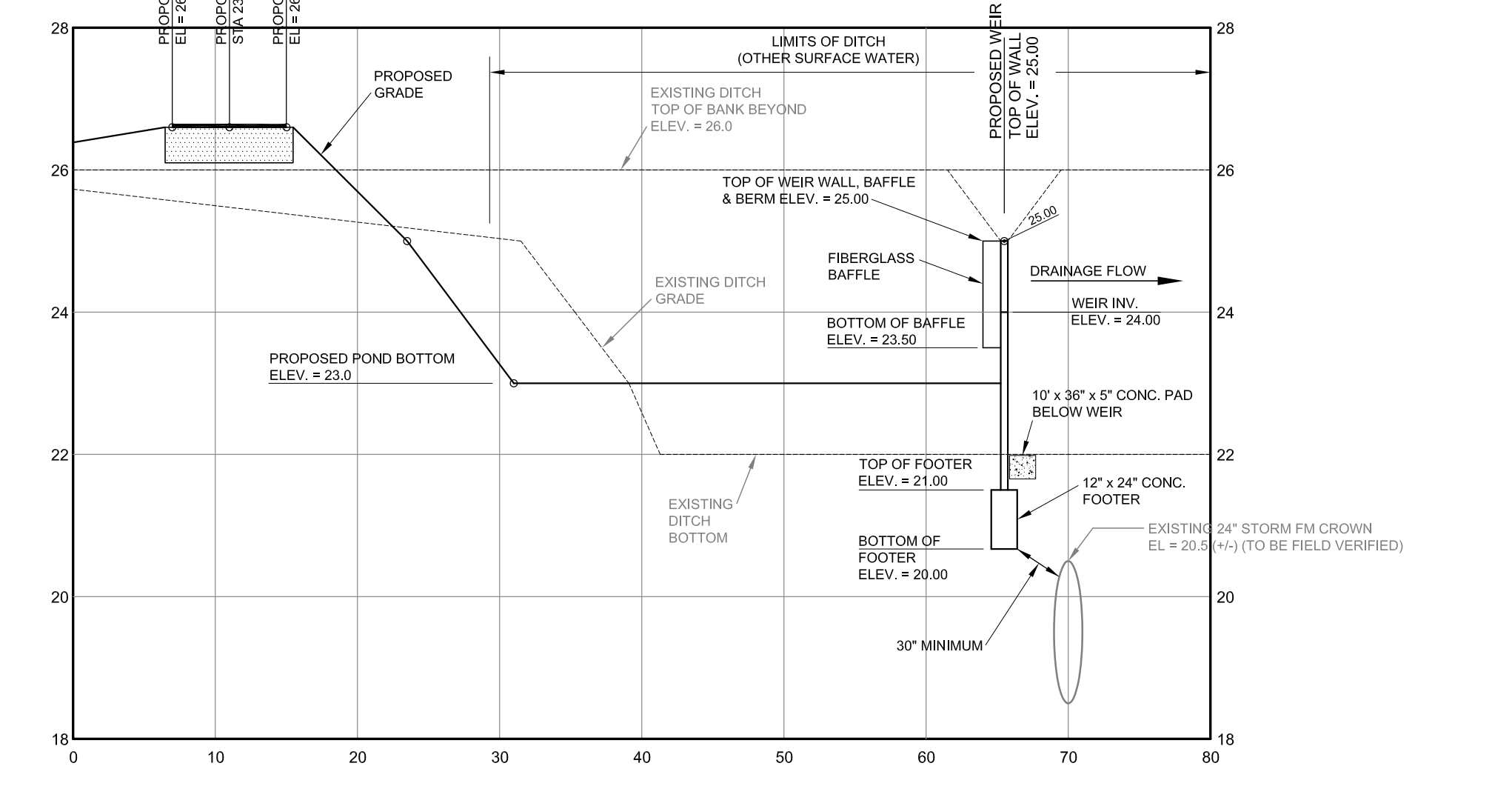
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1" = 2' VERTICAL



SECTION F-F  
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1" = 2' VERTICAL



SECTION G-G  
SCALE: 1" = 10' HORIZONTAL  
1" = 2' VERTICAL



SECTION H-H  
SCALE: 1" = 10' HORIZONTAL  
1" = 2' VERTICAL

**BID NOTE**  
SECTIONS A-A THROUGH D-D, G-G, & H-H SHALL NOT INCLUDE THE TRAIL FOR THIS BID. SIMILARLY SECTION A-A SHALL NOT INCLUDE THE BRIDGE AND SECTION E-E SHALL NOT INCLUDE THE EXERCISE STATION. ALL EARTHWORK SHALL BE COMPLETED WITH FINAL GRADE GENERALLY MATCHING THE TOP OF THE FUTURE TRAIL BASE ELEVATION. FINAL GRADING UNDER THIS BID SHALL NOT ALLOW FOR STANDING WATER.

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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**CITY of TAMPA**  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

**MPH**  
CIVIL CONSULTANTS, INC.

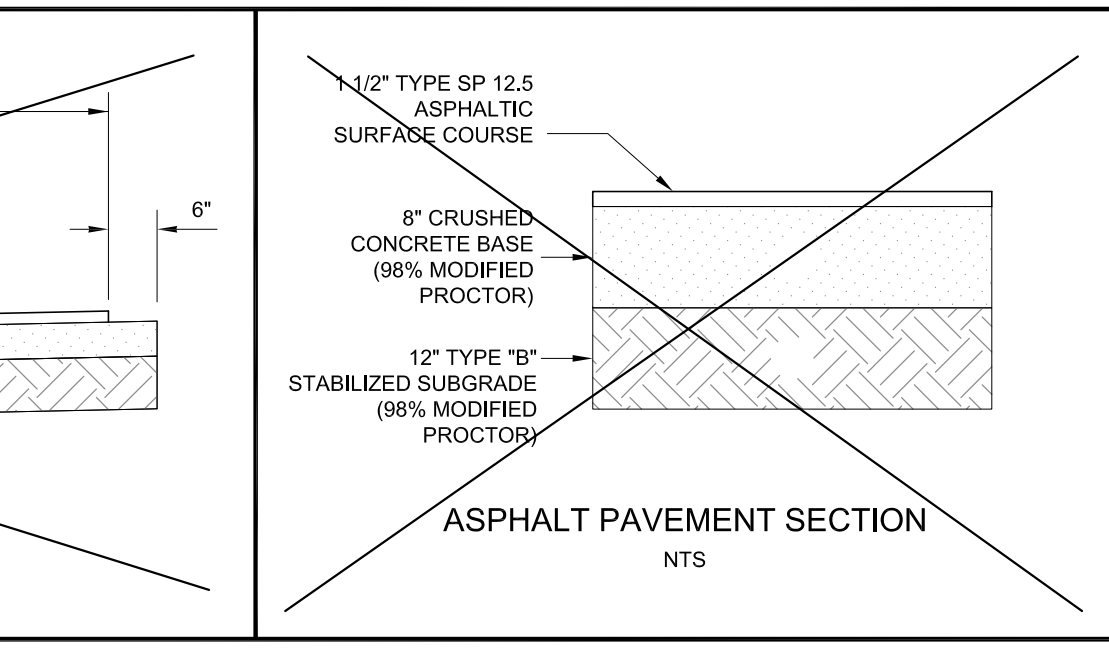
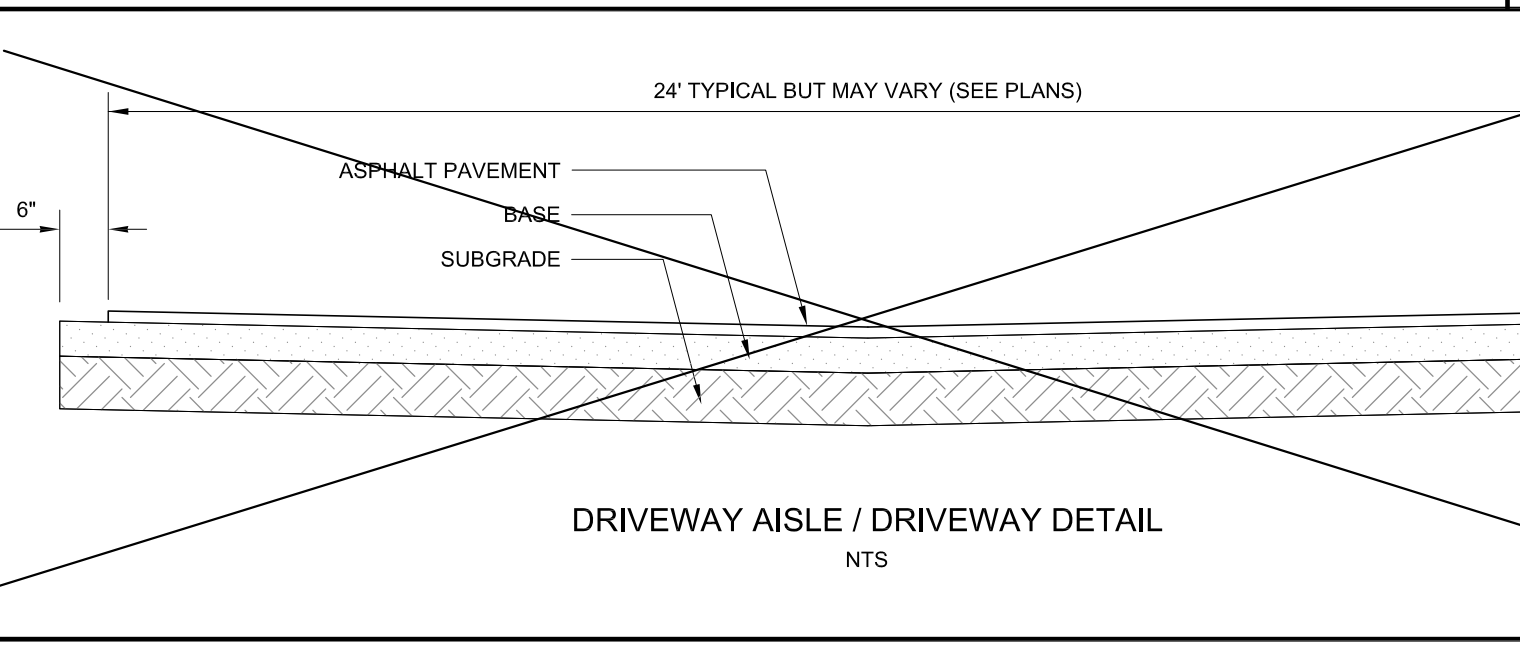
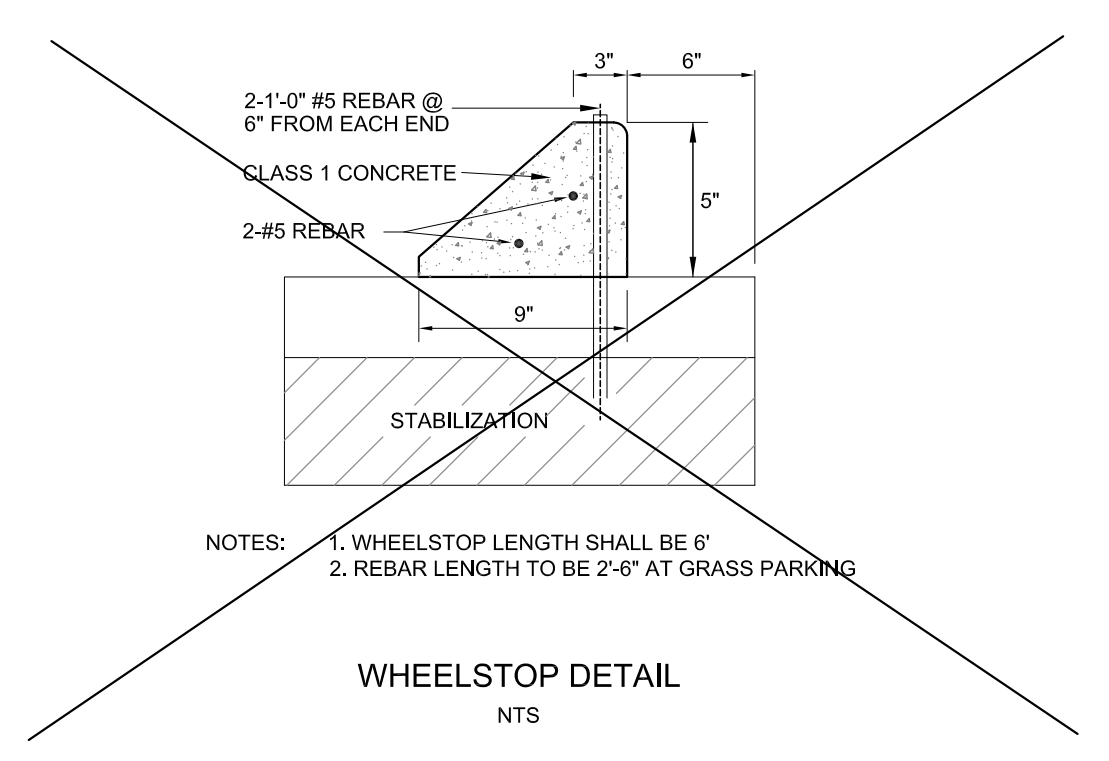
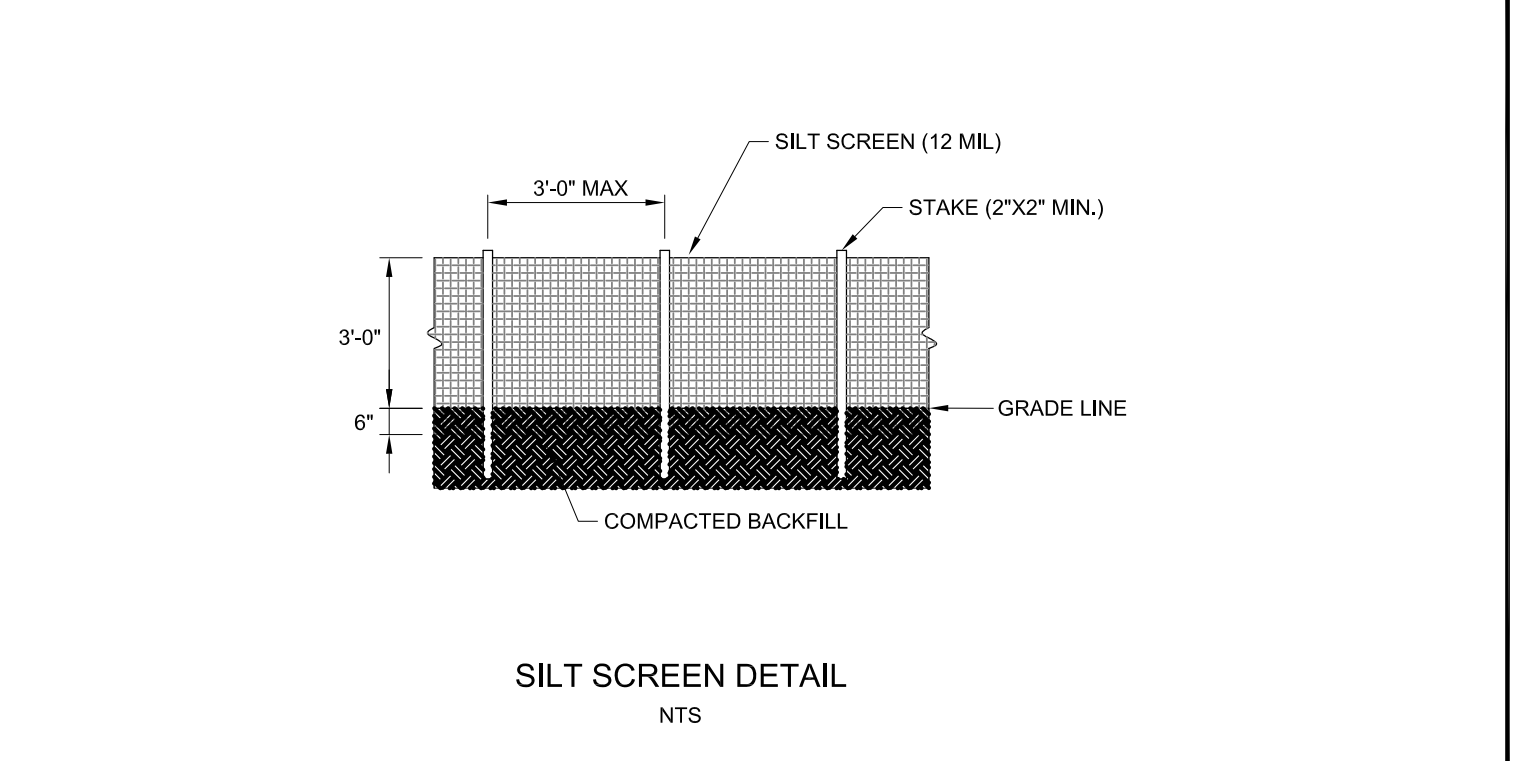
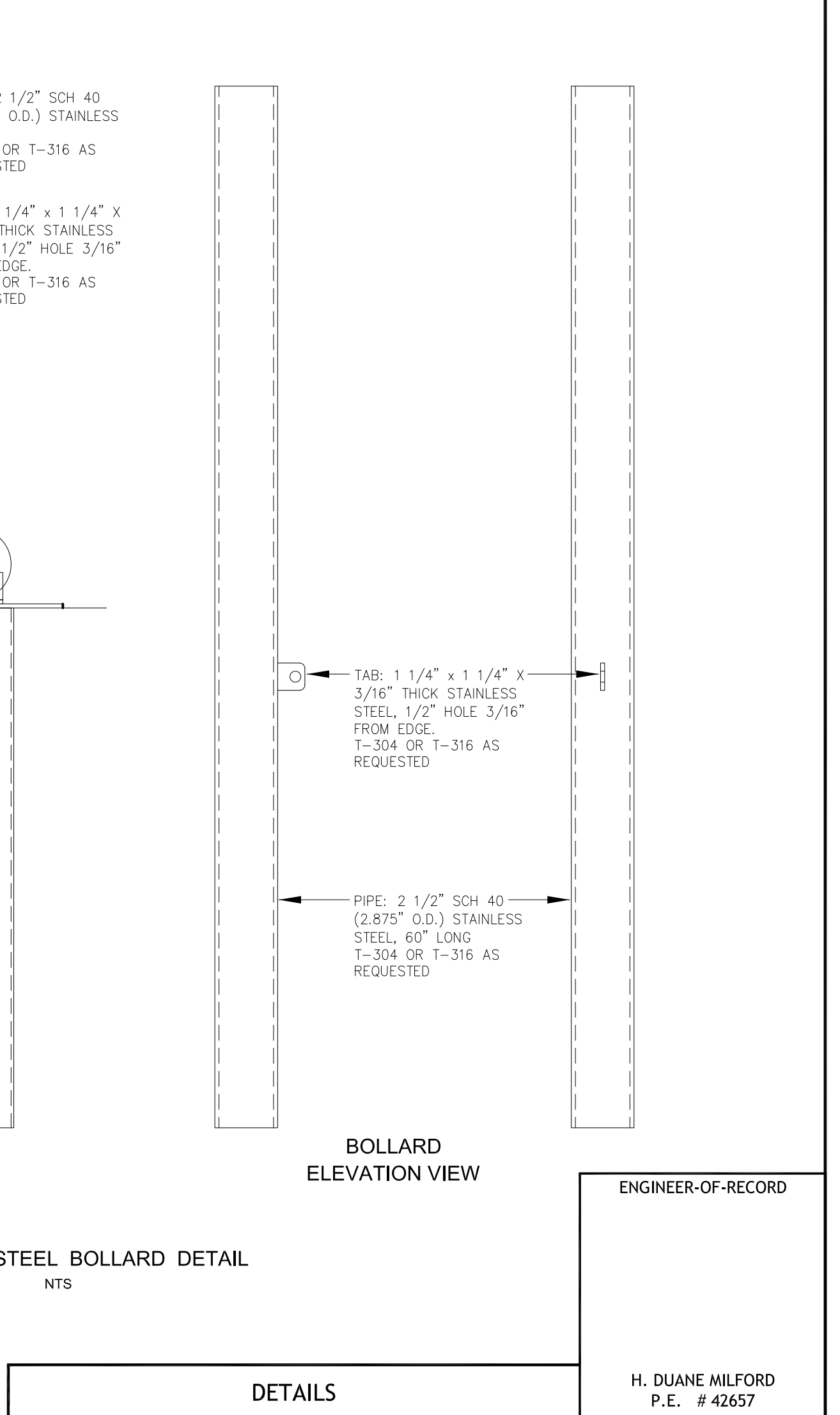
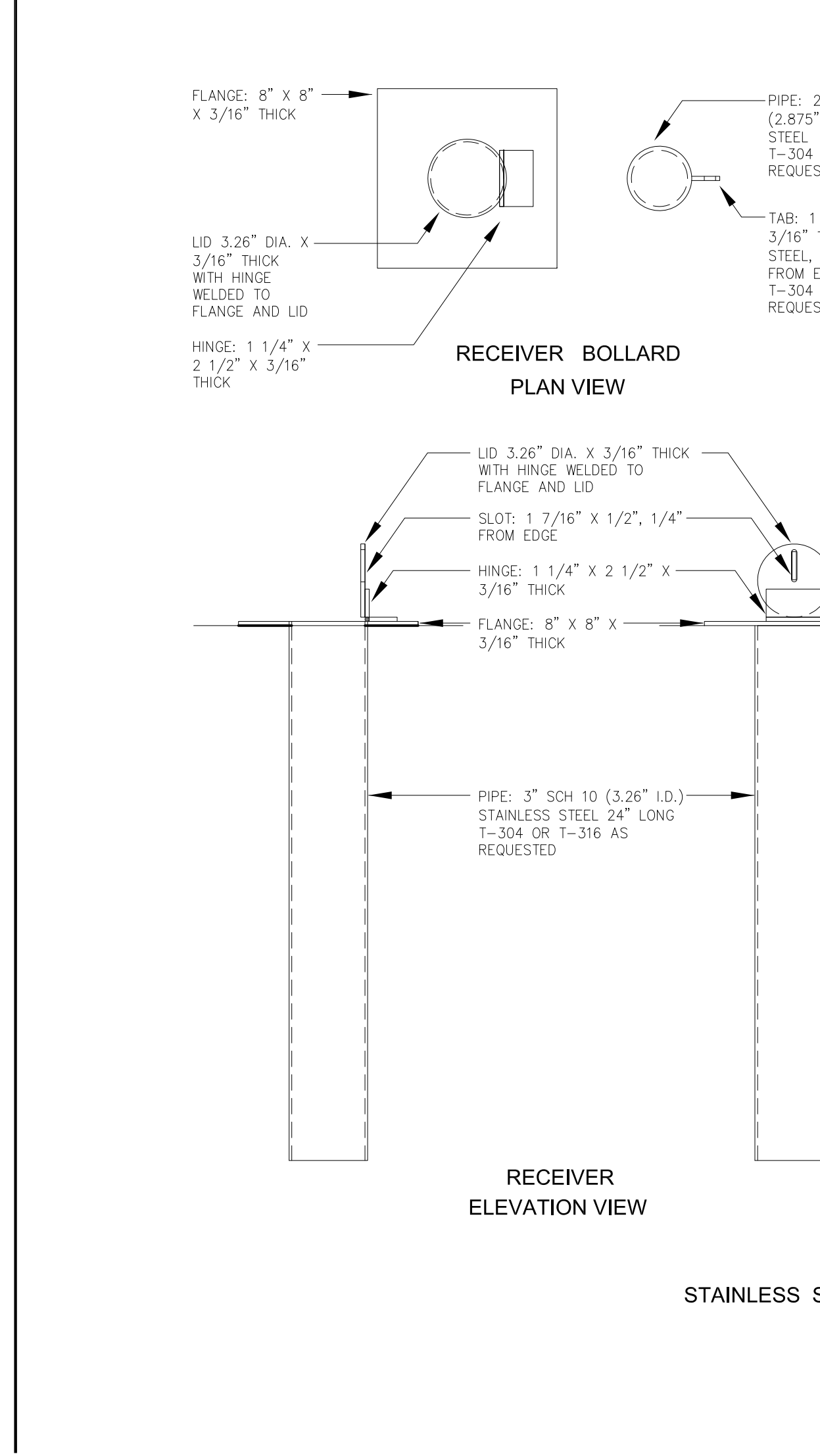
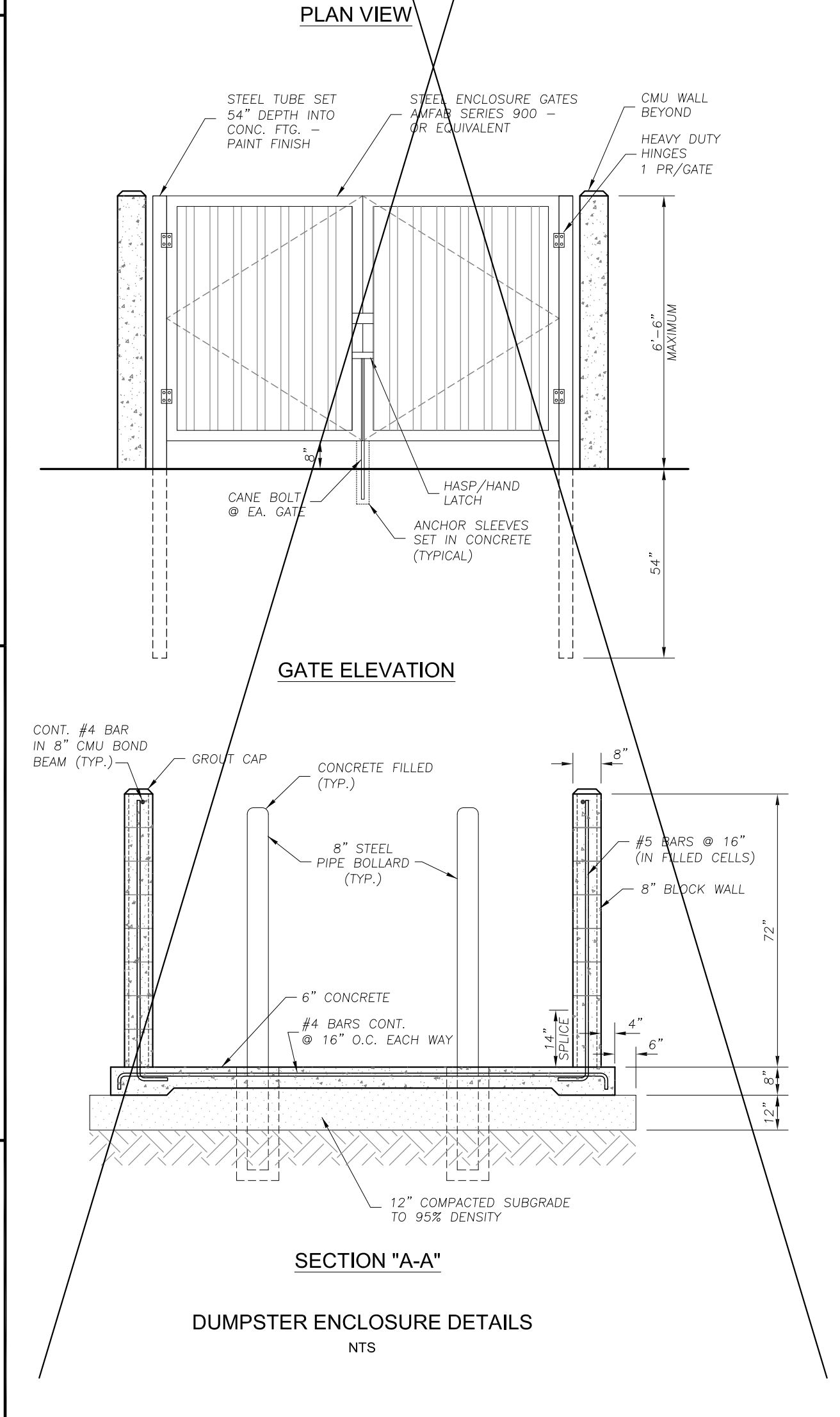
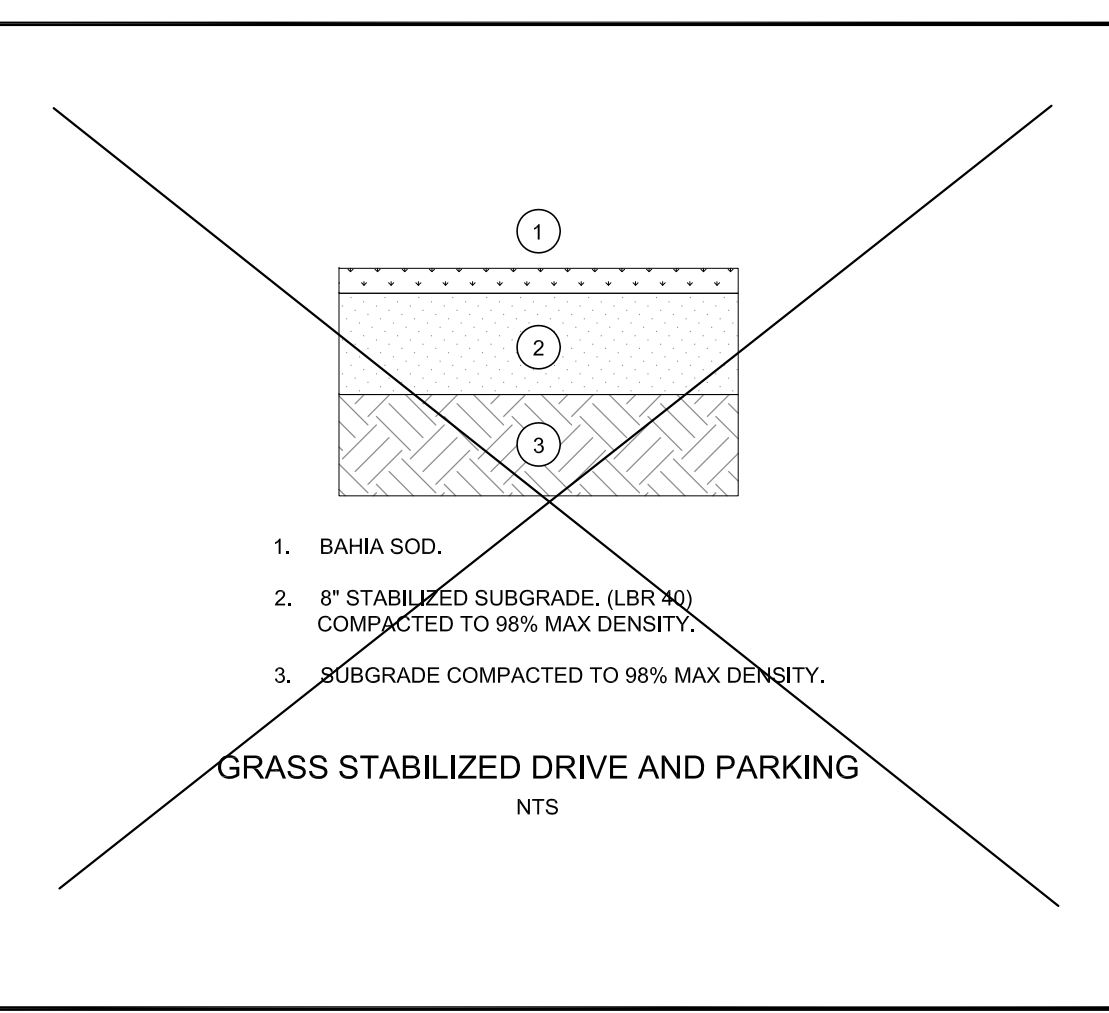
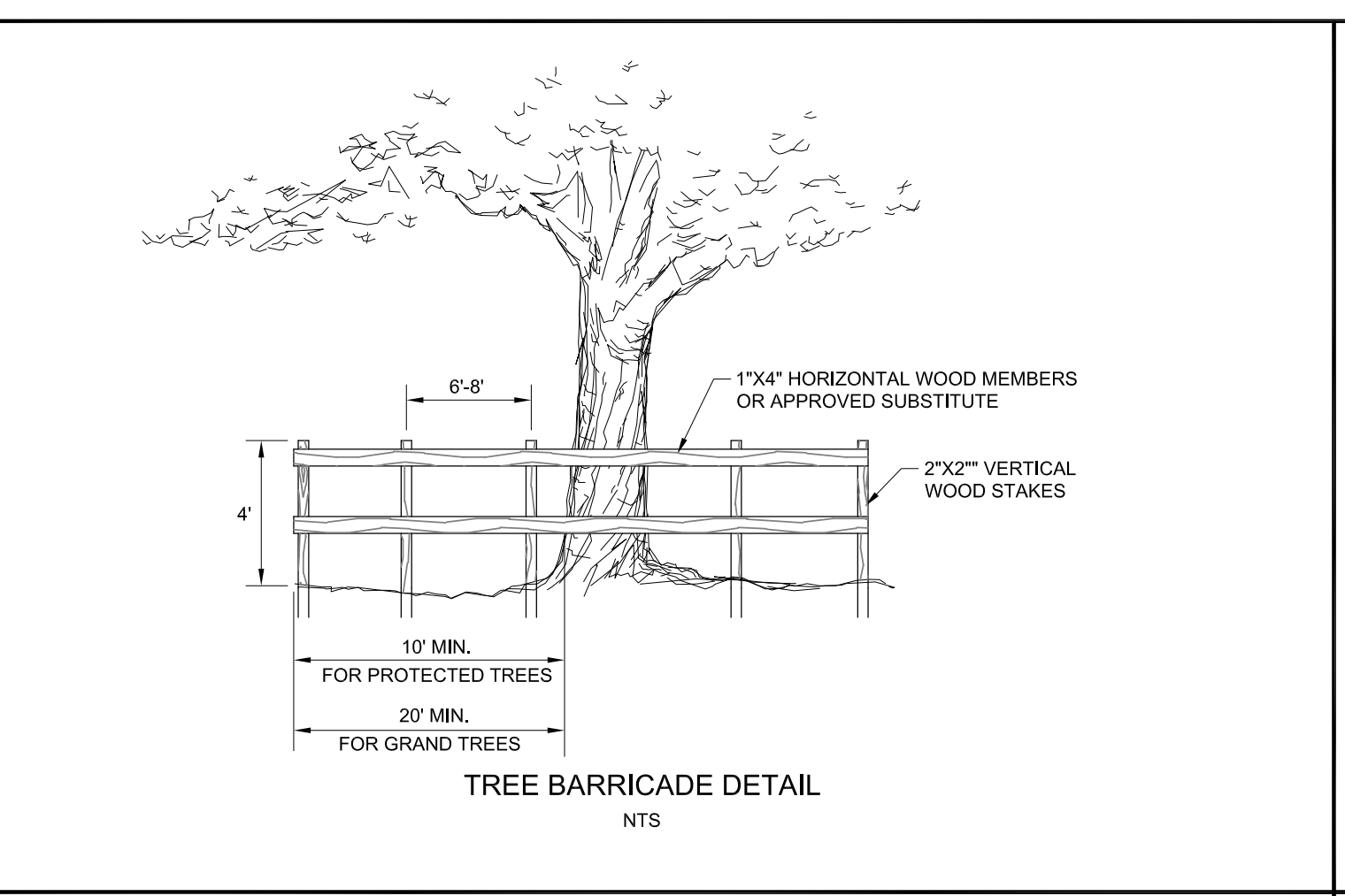
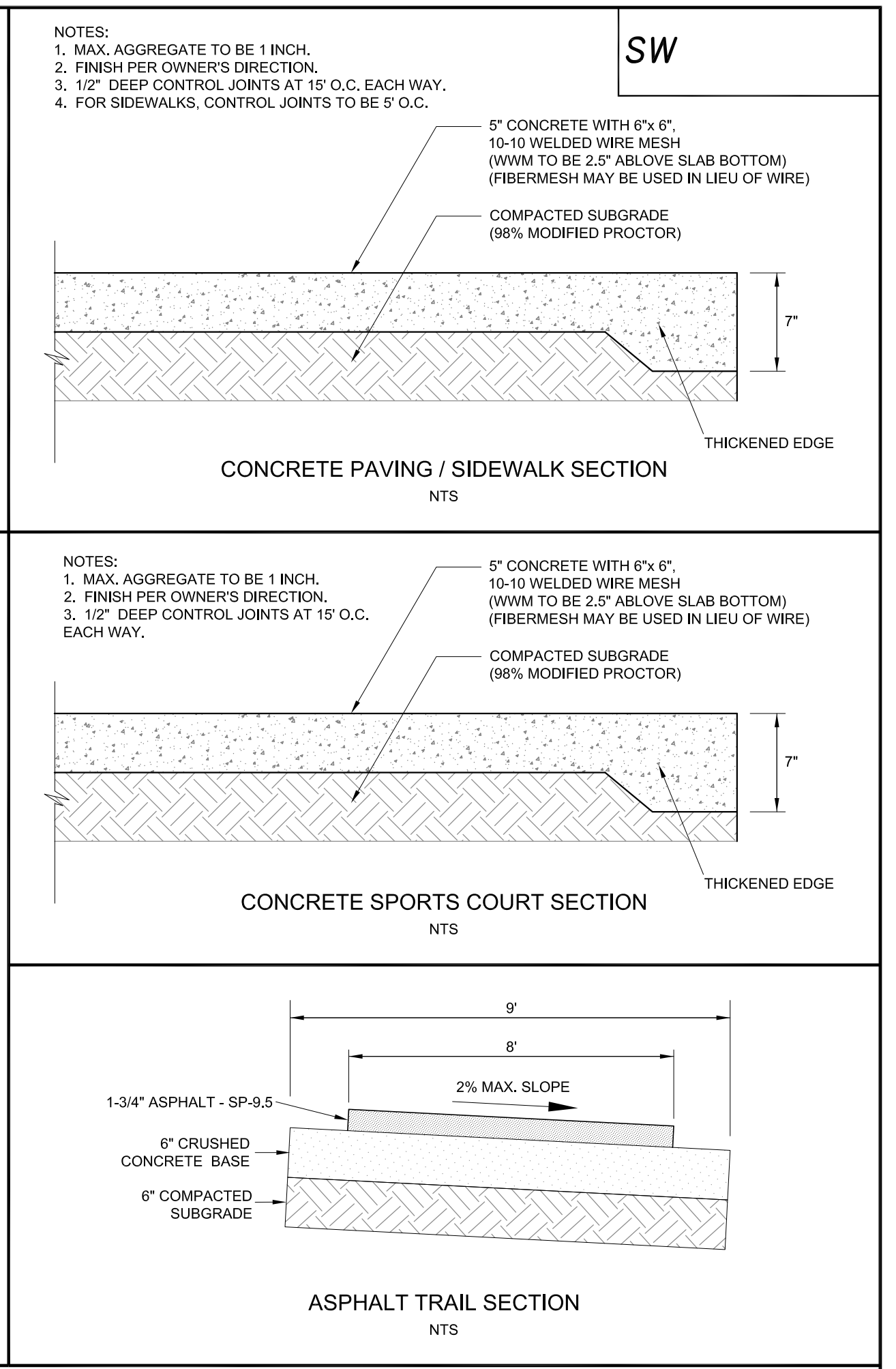
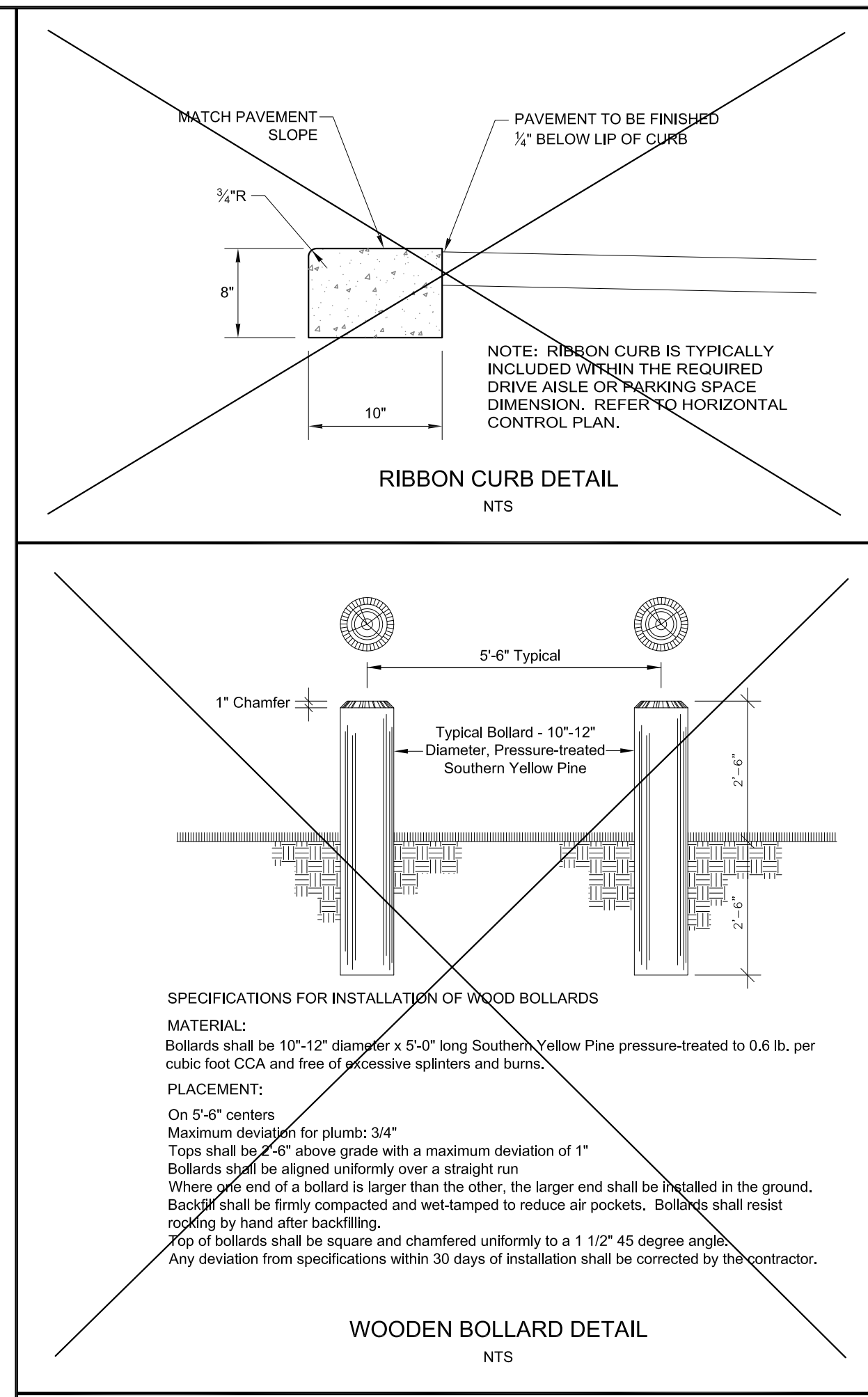
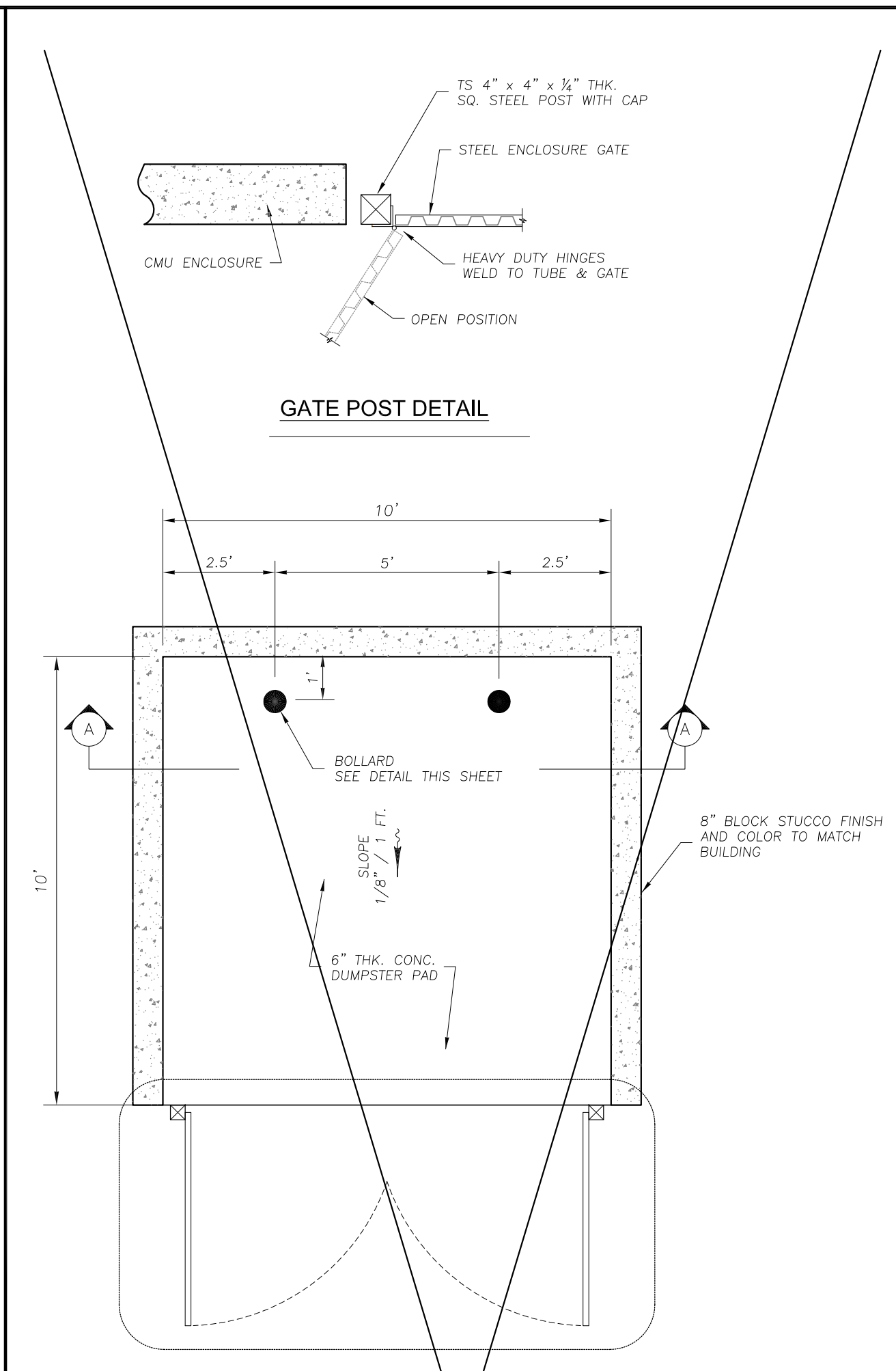
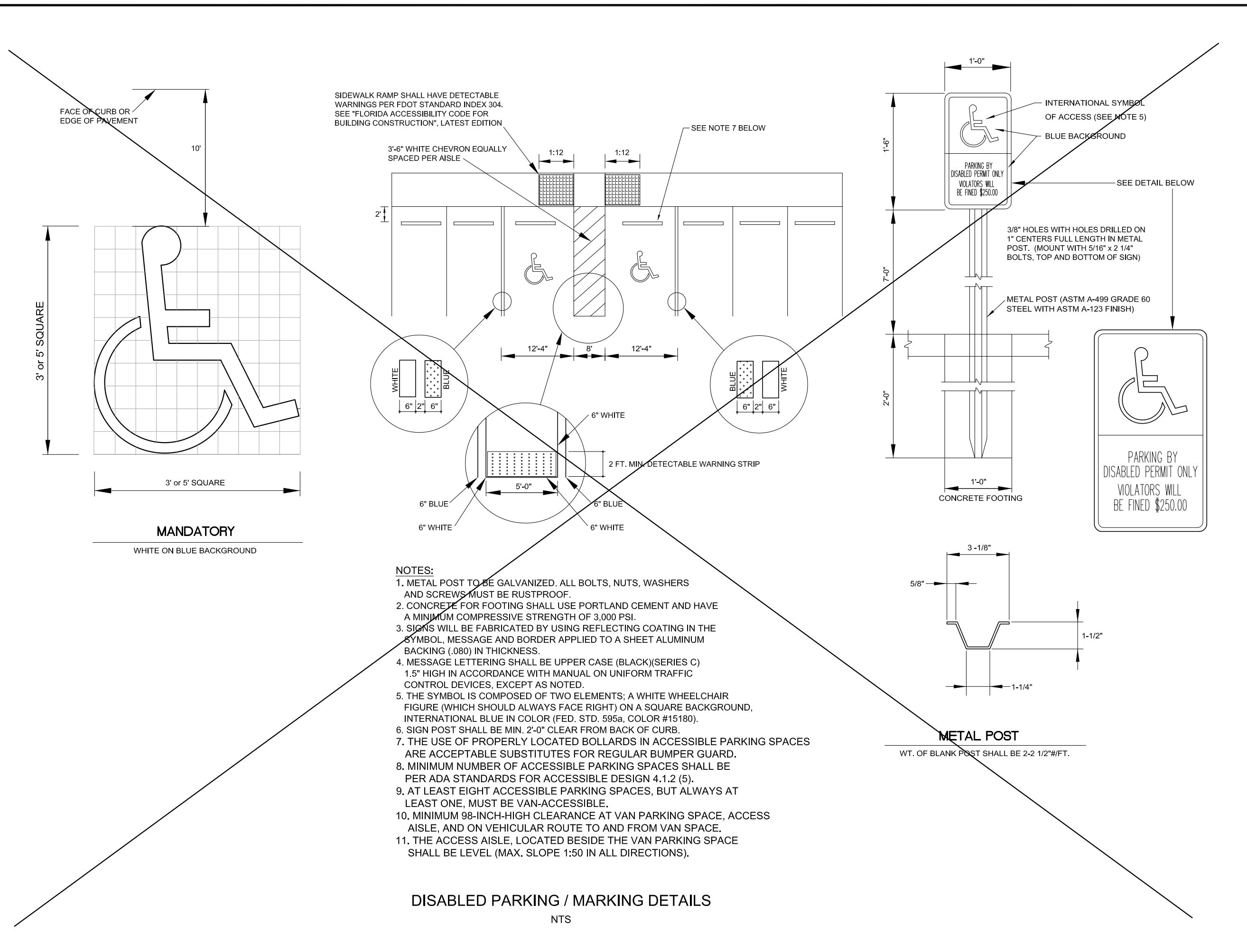
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Florida CA No.: 30727

ENGINEER-OF-RECORD

H. DUANE MILFORD  
P.E. # 42657

CROSS SECTIONS

SHEET  
14  
OF  
21



No.	DATE	REVISIONS	No.	DATE	REVISIONS
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**CITY of TAMPA**  
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Stormwater Engineering Division

**DETAILS**

**ENGINEER-OF-RECORD**  
H. DUANE MILFORD  
P.E. # 42657

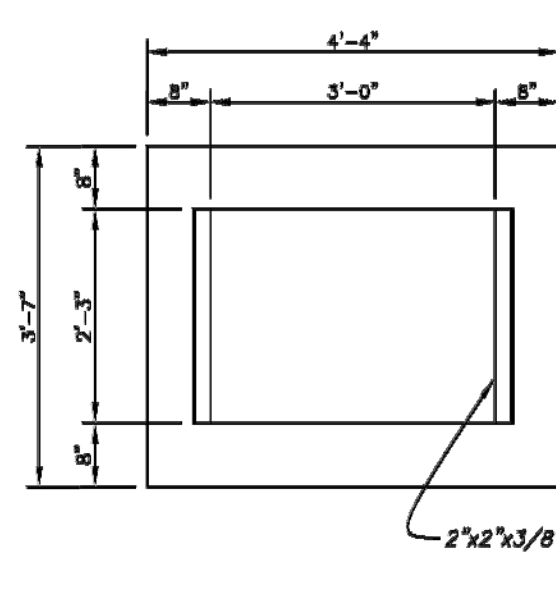
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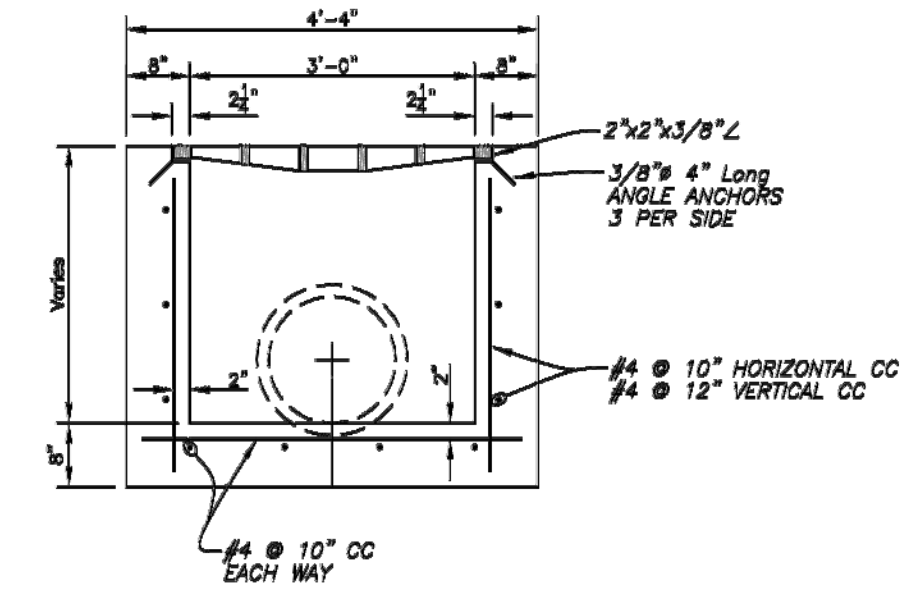
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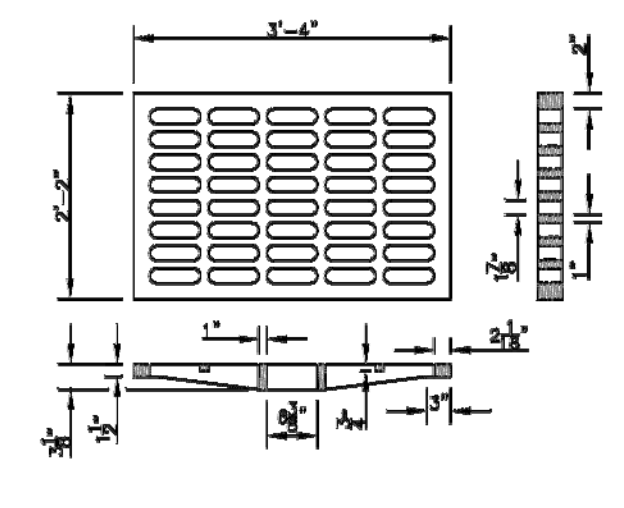


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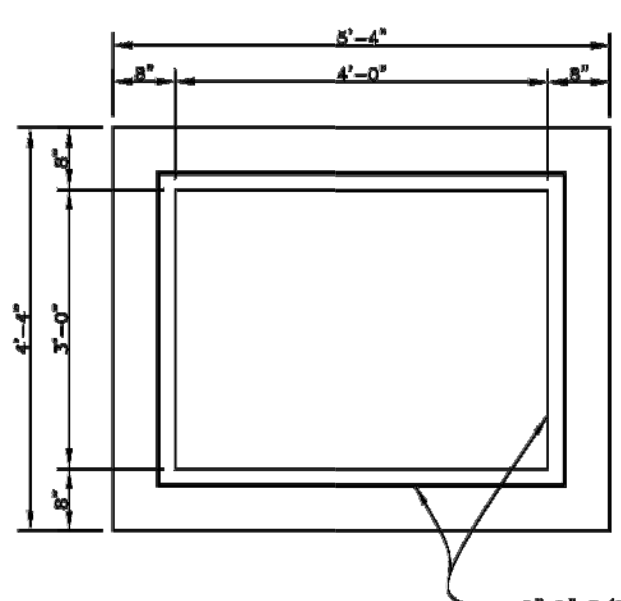


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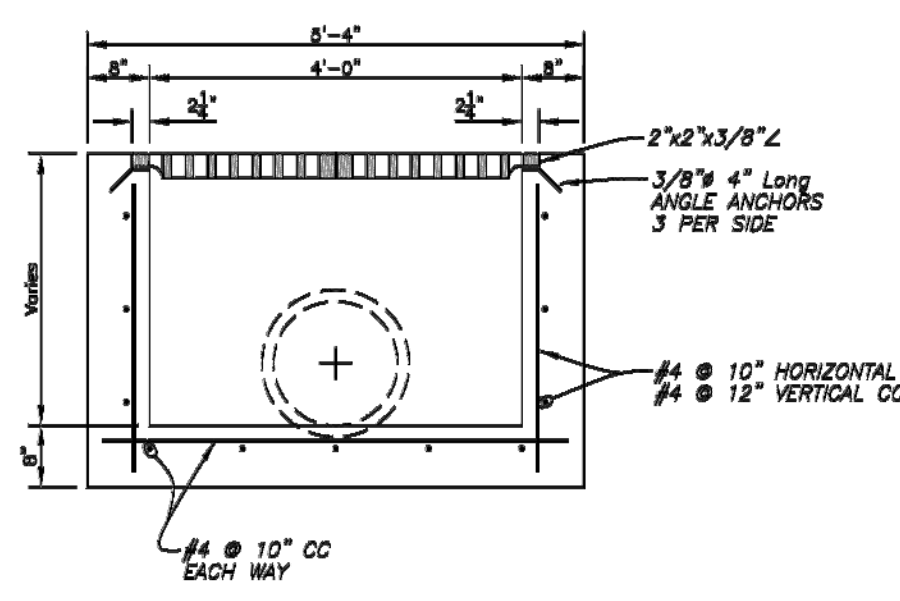
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CAST IRON GRATING

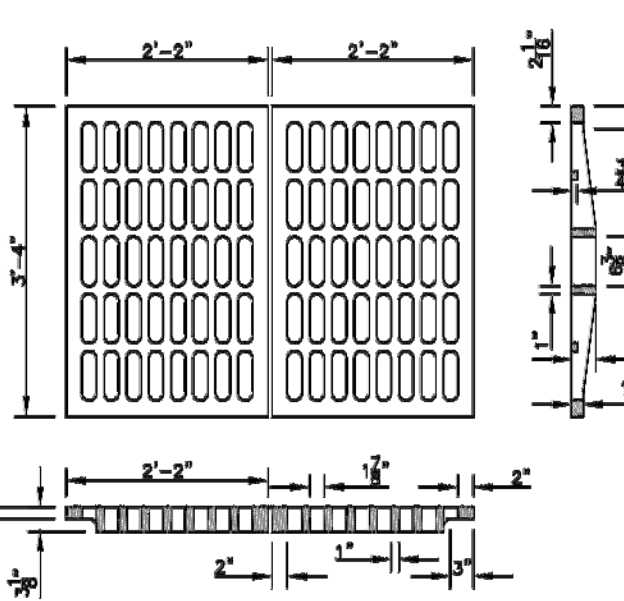


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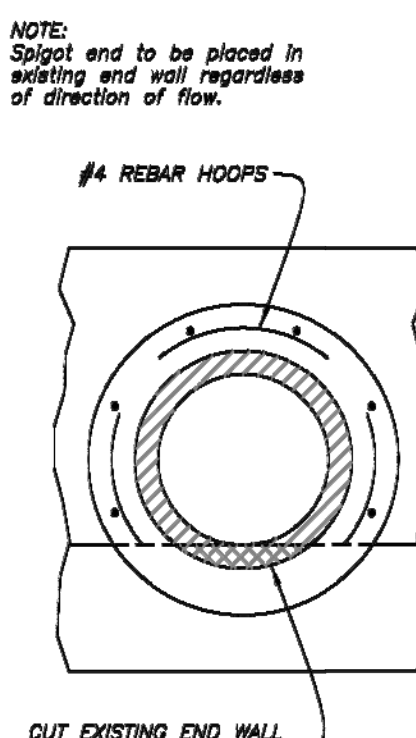


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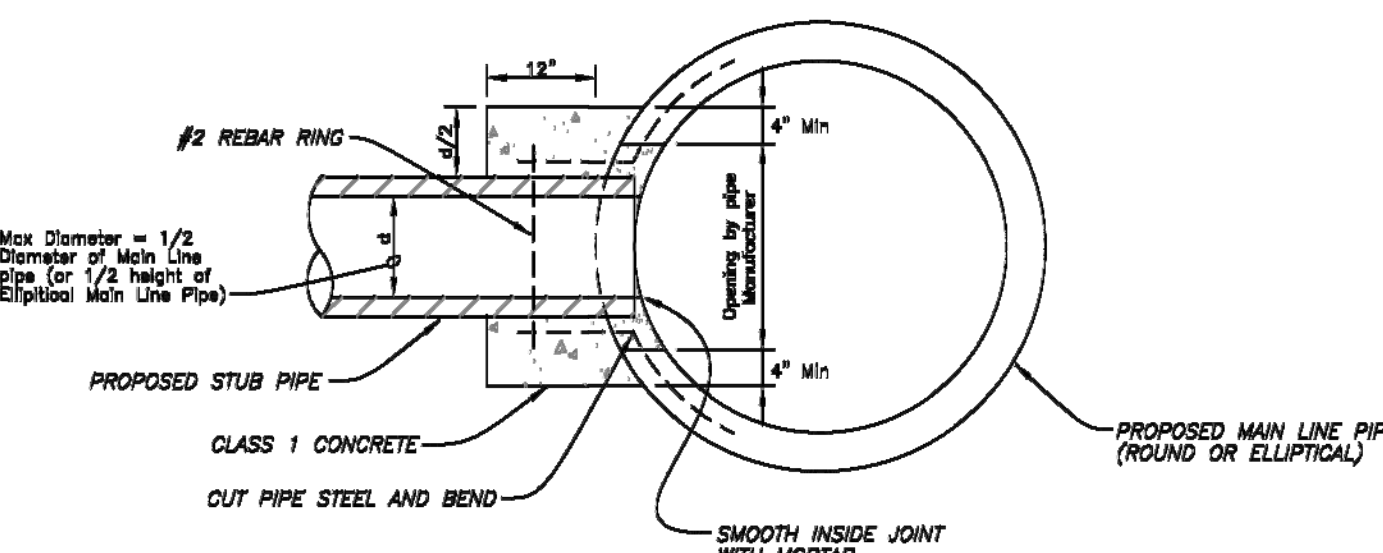
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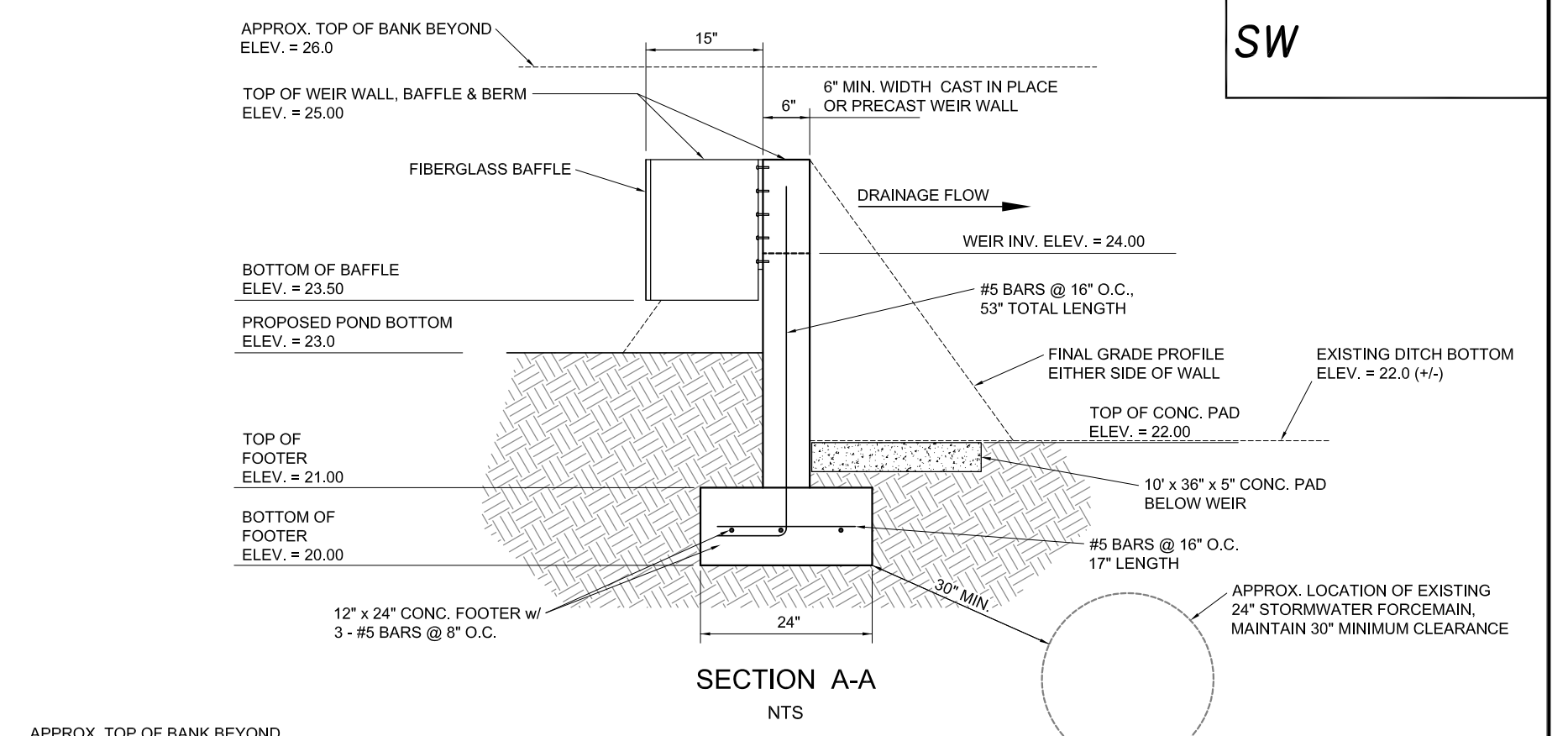
CAST IRON GRATING



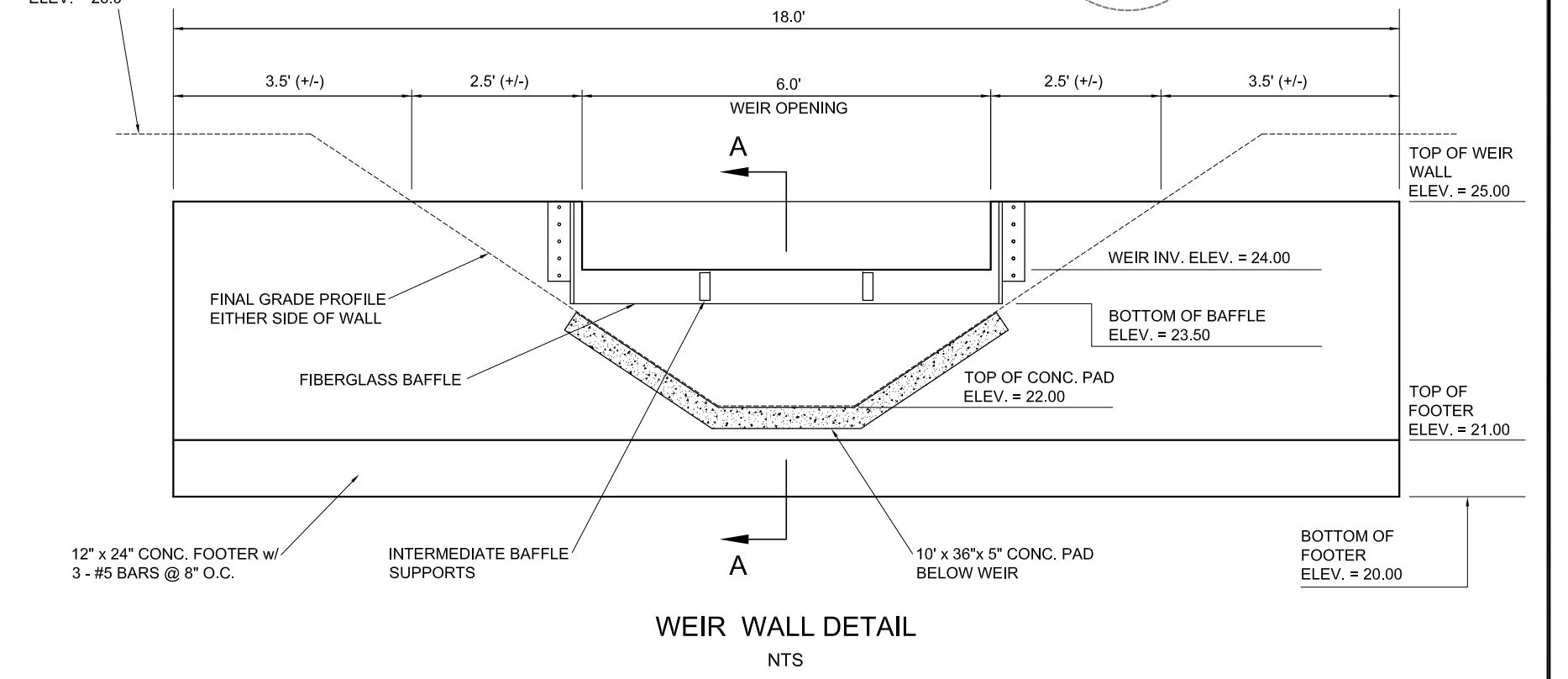
CONCRETE COLLAR FOR EXTENSION OF EXISTING PIPE CULVERT  
NTS



CONCRETE COLLAR FOR JOINING MAINLINE PIPE AND STUB PIPE  
NTS

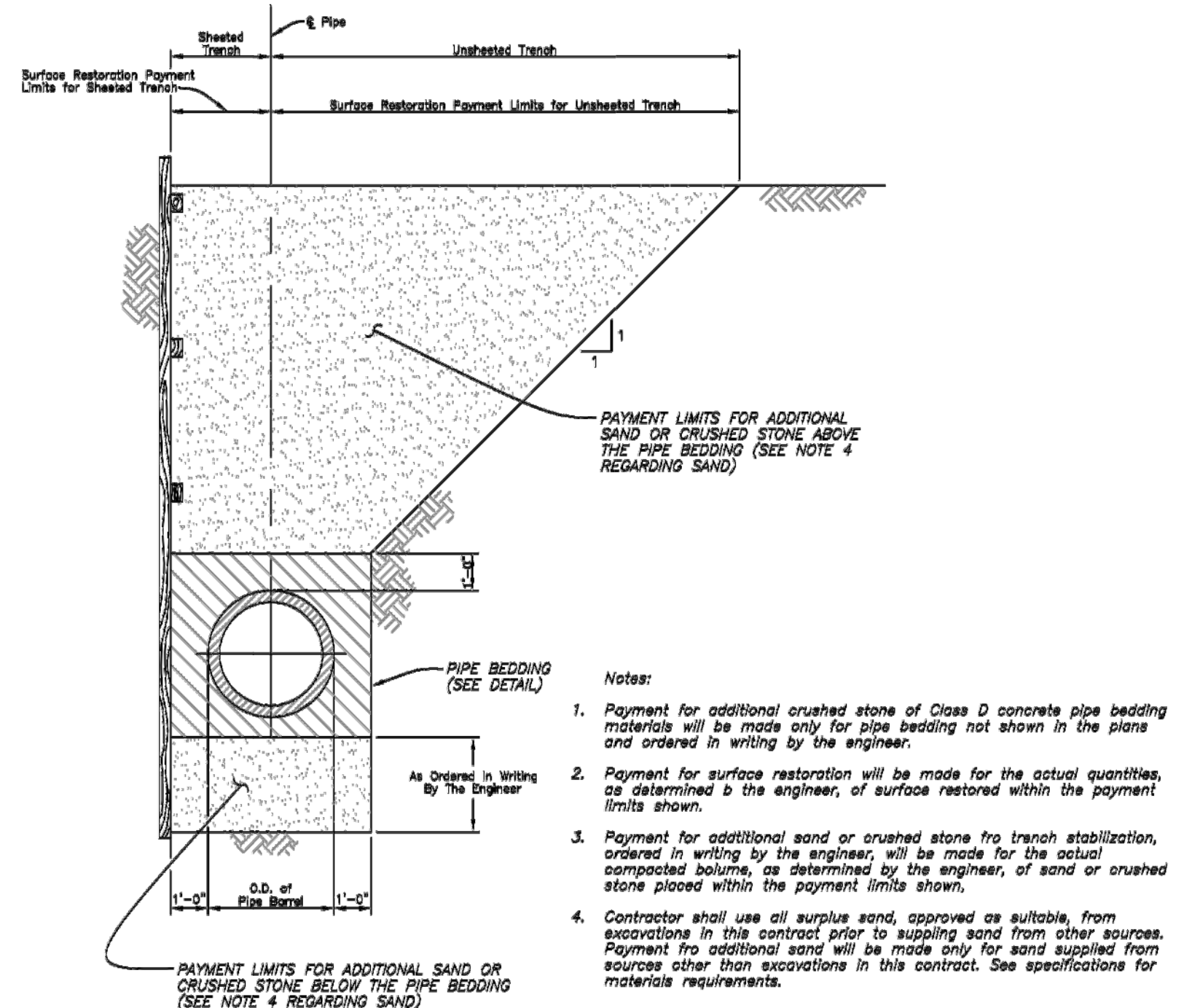


SECTION A-A  
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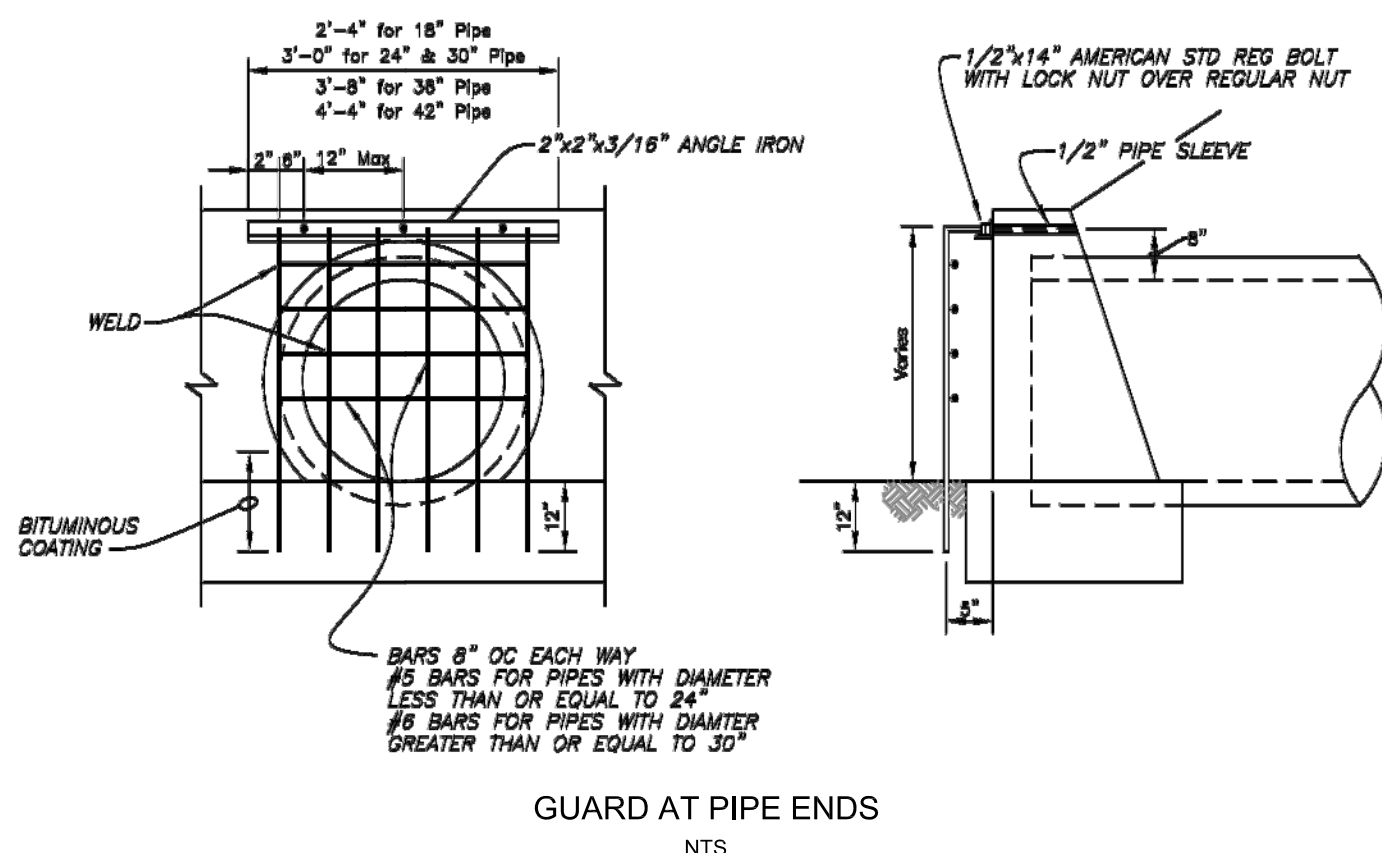


WEIR WALL DETAIL  
NTS

QUANTITIES FOR PAYMENT FOR ADDITIONAL PIPE BEDDING MATERIALS ORDERED IN WRITING BY THE ENGINEER										
NOMINAL INSIDE DIAMETER (INCHES)	18	18	24	30	36	42	48	54	60	72
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CONCRETE ENCASEMENT	0.238	0.299	0.383	0.472	0.588	0.680	0.787	0.908	1.027	1.279
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CLASS A BEDDING (CONCRETE DRAGLE)	0.128	0.150	0.182	0.238	0.294	0.349	0.399	0.453	0.514	0.640
CUBIC YARDS OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B-1 BEDDING	0.304	0.382	0.479	0.608	0.781	0.938	1.103	1.281	1.471	1.887
CUBIC YARDS OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B BEDDING	0.111	0.143	0.207	0.280	0.381	0.475	0.578	0.690	0.810	1.078



PAYMENT LIMITS FOR SURFACE RESTORATION AND ADDITIONAL SAND OR CRUSHED STONE FOR TRENCH STABILIZATION  
NTS

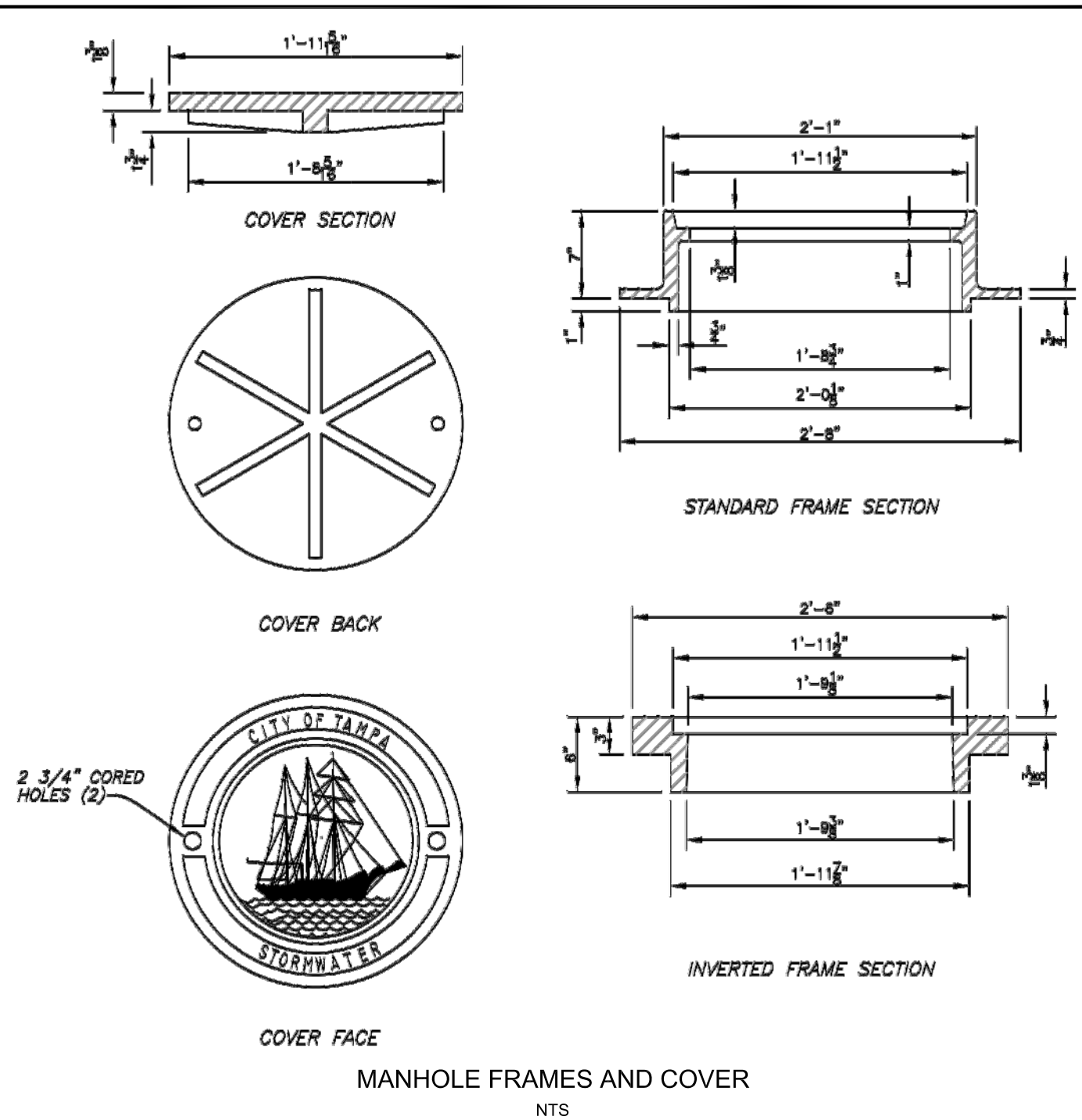


GUARD AT PIPE ENDS  
NTS

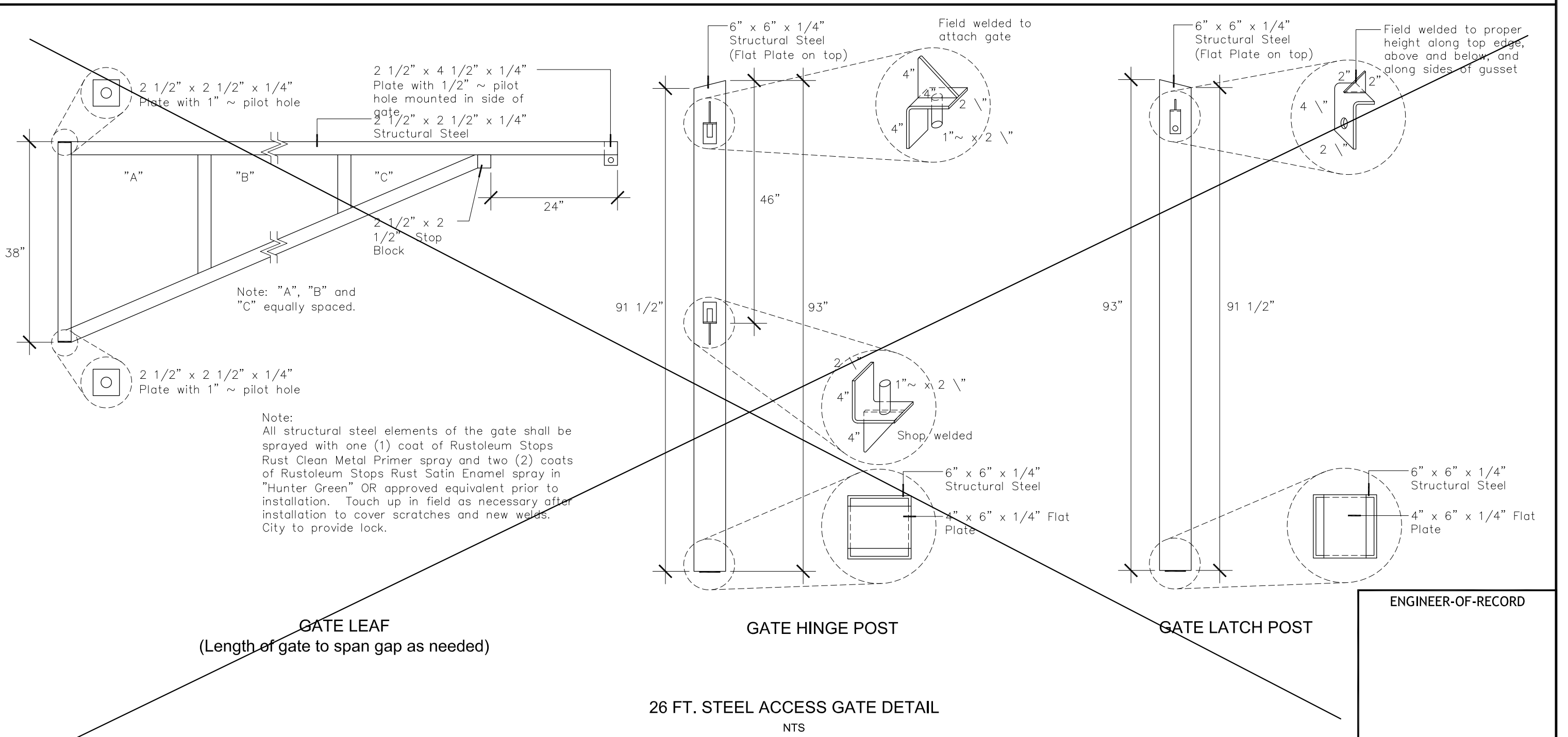
CITY OF TAMPA STANDARD DETAILS	
SCHEDULE OF CASTINGS	
STRUCTURE TYPE	
All Curb Inlets (Cover)	USF 1180 (85 lb.)
All Curb Inlets (Ring)	USF 1180
All Manholes (Cover)	USF Type AD (180 lb.)
All Manholes (Standard Ring)	USF 573
All Manholes (Inverted Ring)	USF 1175
Type T Grate Inlets	USF 6289
Type E Grate Inlets	USF 6286
Type H Grate Inlets	USF 6288
Grate Seats	USF 7100

CITY OF TAMPA STORMWATER DEPARTMENT  
GENERAL NOTES AND SCHEDULE OF CASTINGS

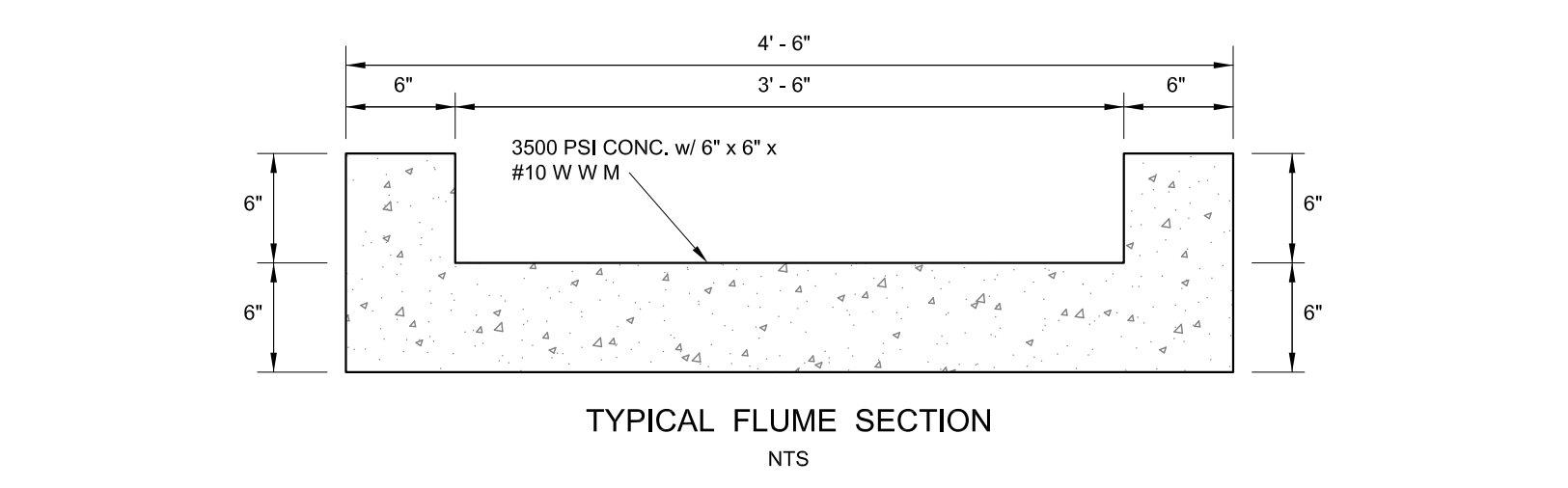
- ALL DRAINAGE STRUCTURES (MANHOLES, INLETS, OUTFALL STRUCTURES AND OTHERS) SHALL INCLUDE A 6" THICK COMPACTED #57 AGGREGATE FOUNDATION, WRAPPED COMPLETELY WITH FILTER FABRIC MEETING FDOT STANDARD SPECIFICATIONS 441-2.3.
- ALL PIPE JOINTS (ROUND, ELIPTICAL AND BOX CULVERTS) SHALL BE WRAPPED COMPLETELY WITH FILTER FABRIC MEETING FDOT STANDARD SPECIFICATIONS 441-2.3. FABRIC SHALL EXTEND ONE FOOT ONTO EACH PIPE SECTION (JOINT) AND SHALL OVERLAP A MINIMUM OF ONE FOOT CIRCUMFERENTIALLY. FABRIC SHALL BE HELD IN PLACE WITH RUST-PROOF METAL STRAPPING.



MANHOLE FRAMES AND COVER  
NTS



26 FT. STEEL ACCESS GATE DETAIL  
NTS



TYPICAL FLUME SECTION  
NTS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

DES: HDM  
DRN: TLD  
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DATE: 11/7/18

CITY OF TAMPA  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division

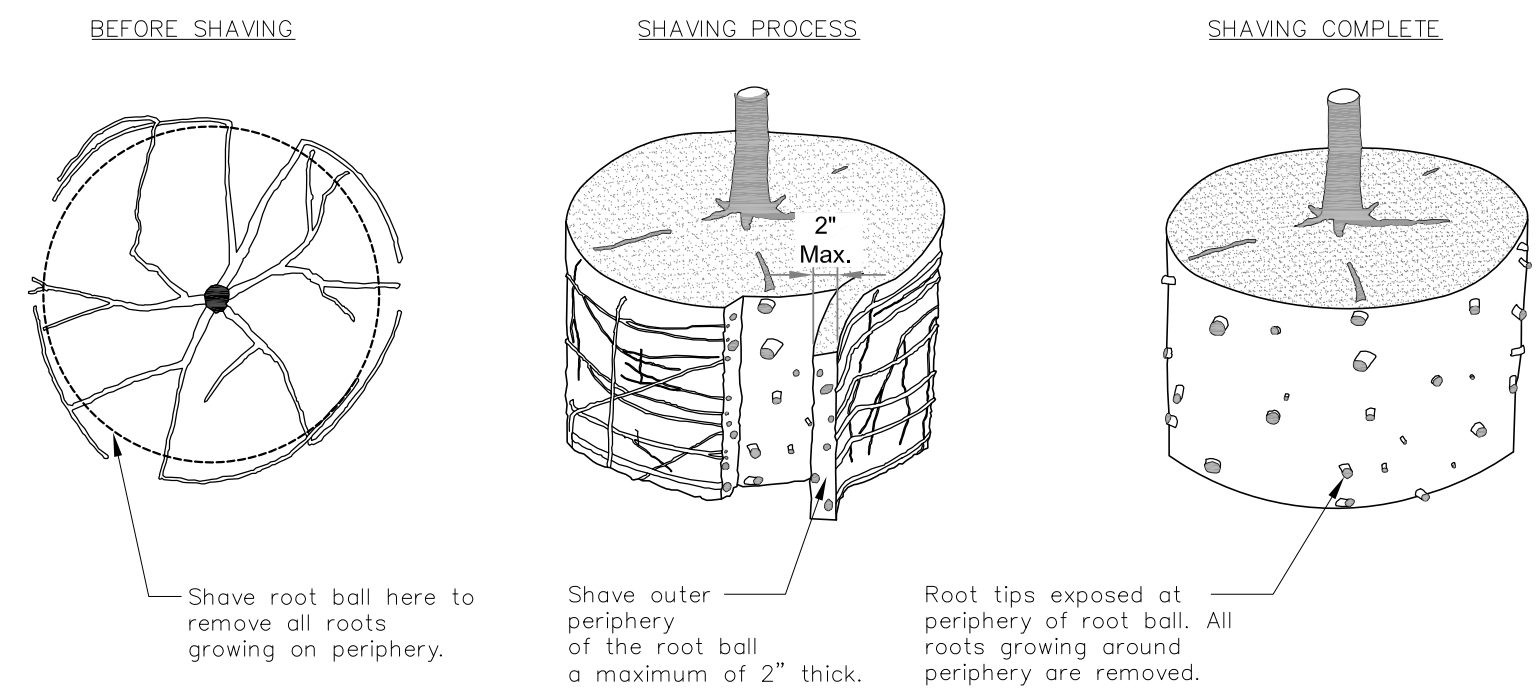


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Florida CA No.: 30727

ENGINEER-OF-RECORD  
H. DUANE MILFORD  
P.E. # 42657

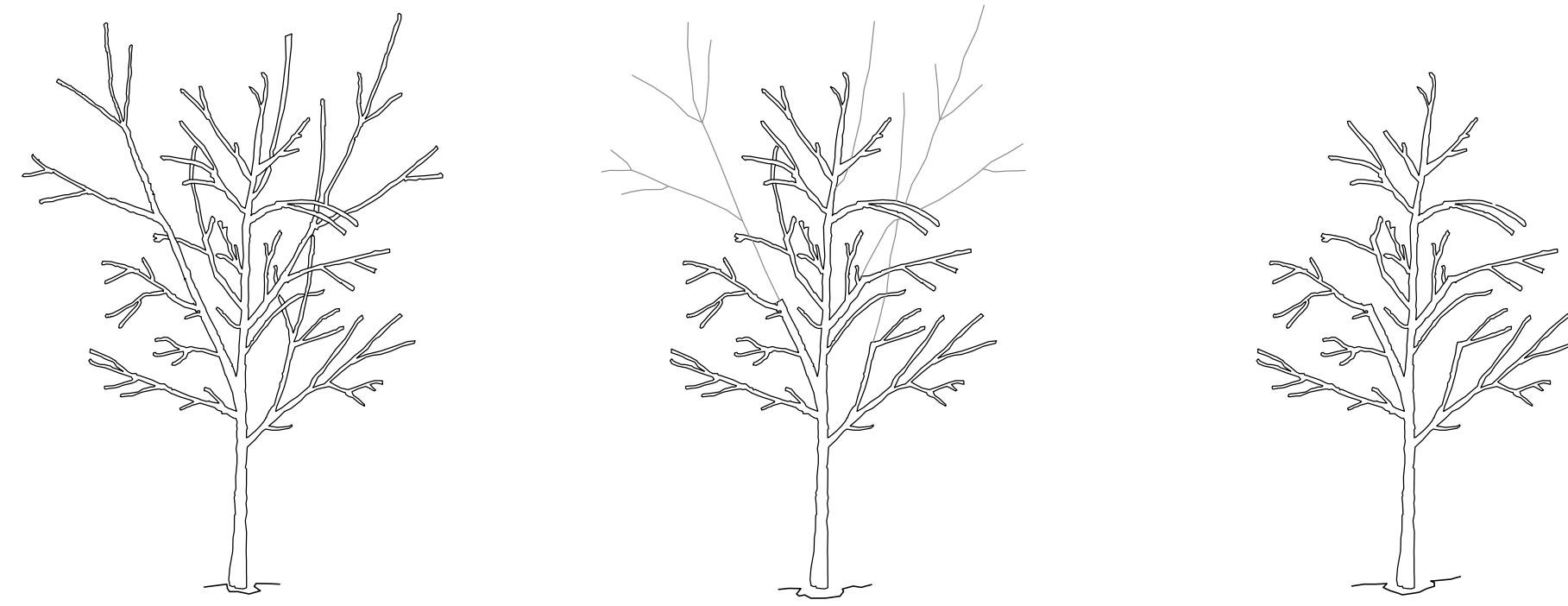
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OF  
21

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- Notes:
- Shaving to be conducted using a sharp blade or hand saw eliminating no more than needed to remove all roots on the periphery of root ball.
  - Shaving can be performed just prior to planting or after placing in the hole.

ROOT BALL SHAVING CONTAINER DETAIL  
NTS



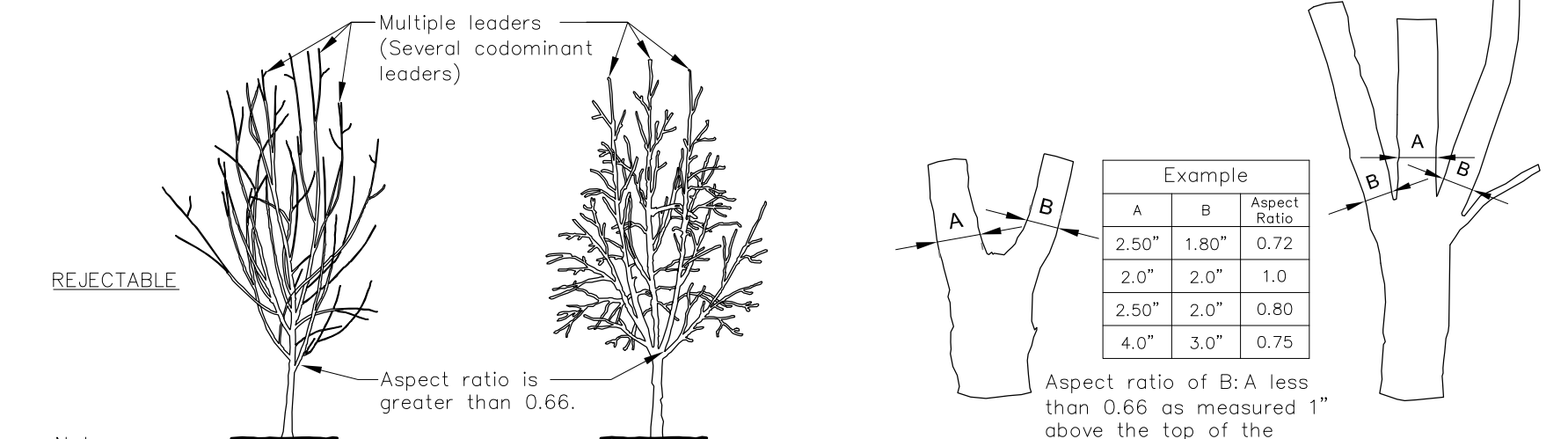
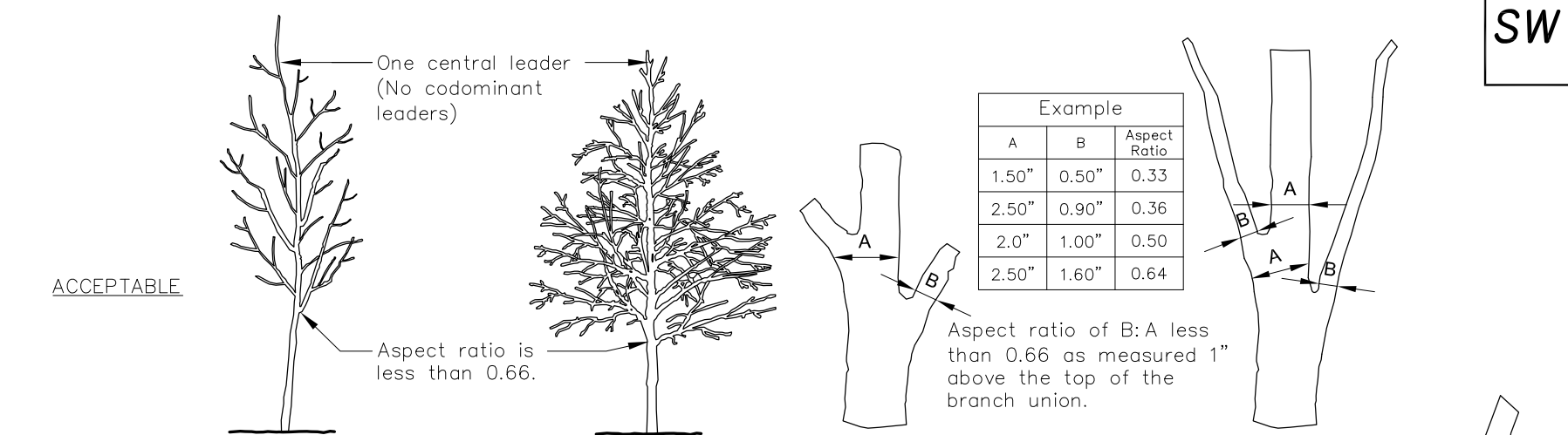
Before planting, tree has three codominant stems. The two that compete with the one in the center should be pruned to suppress their growth.

Two competing stems were reduced substantially, in this case removing about 70% of their foliage using reduction cuts.

After pruning, tree has only one dominant stem.

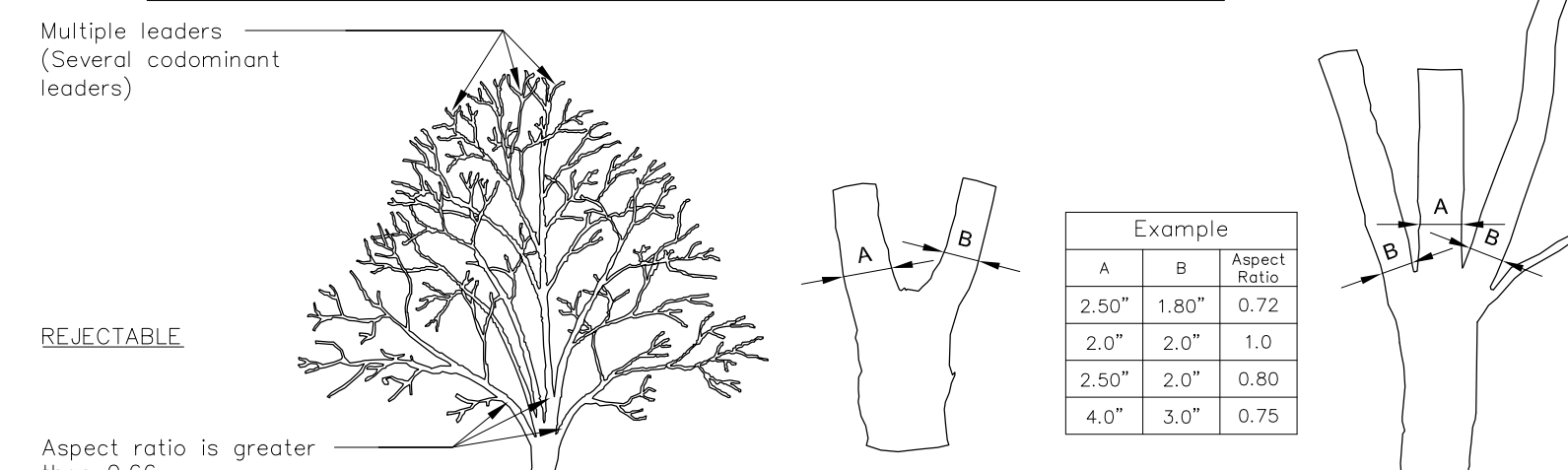
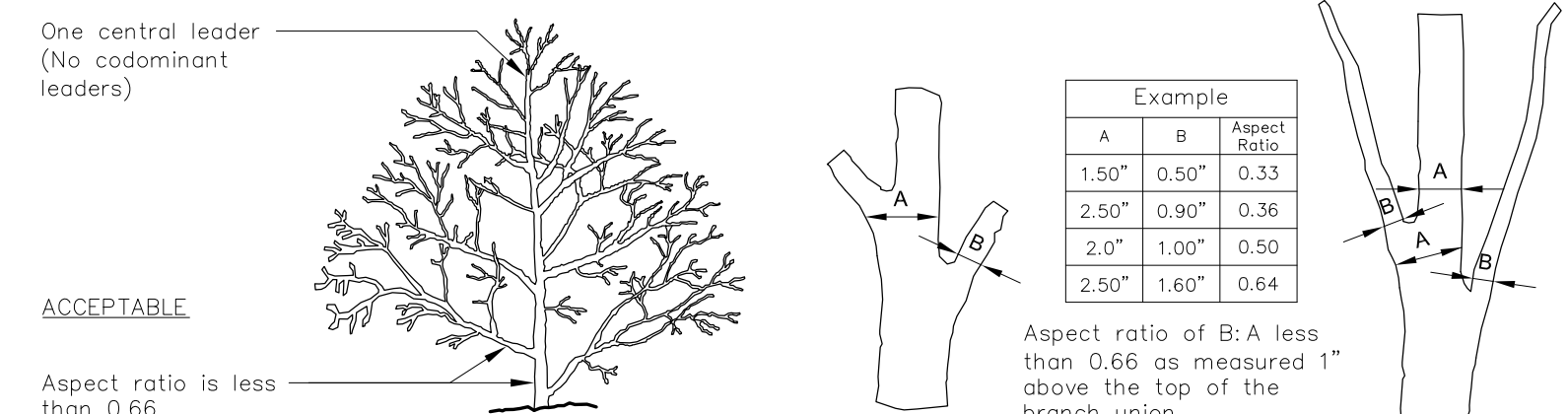
- Notes:
- All trees shown are rejectable unless they undergo recommended treatment.
  - Tree shall meet crown observation detail following correction.

CROWN CORRECTION DETAIL  
NTS



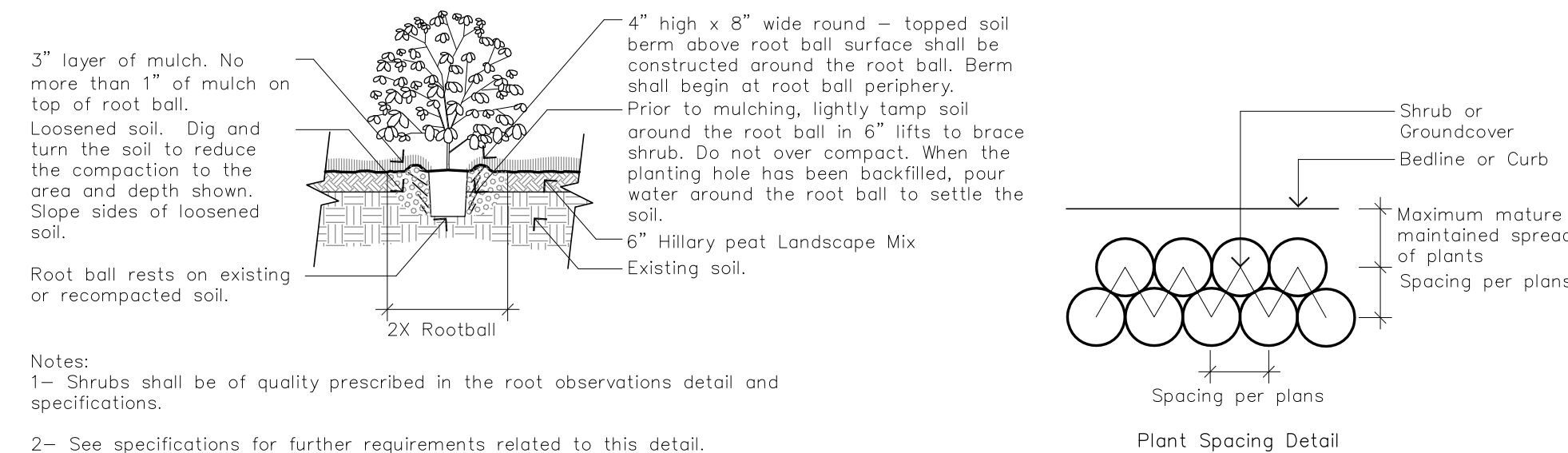
- Notes:
- Aspect ratio shall be less than 0.66 on all branch unions. Aspect ratio is the diameter of branch (B) divided by the diameter of the trunk (A) as measured 1" above the top of the branch union.
  - Any tree not meeting the crown observations detail may be rejected.

CROWN OBSERVATIONS - HIGH BRANCHED  
NTS



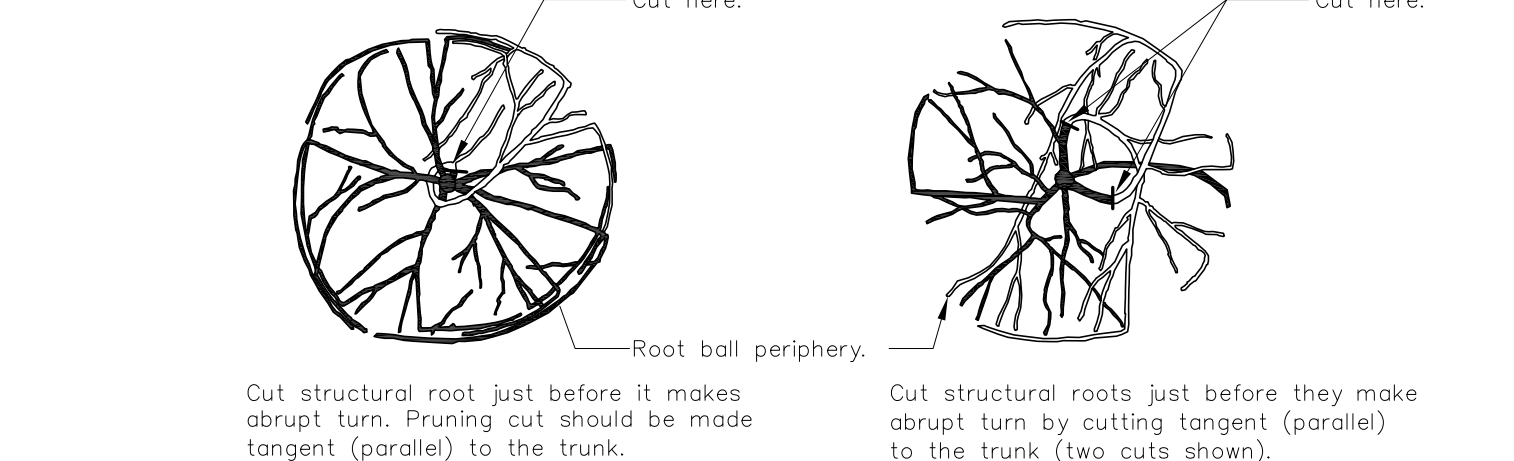
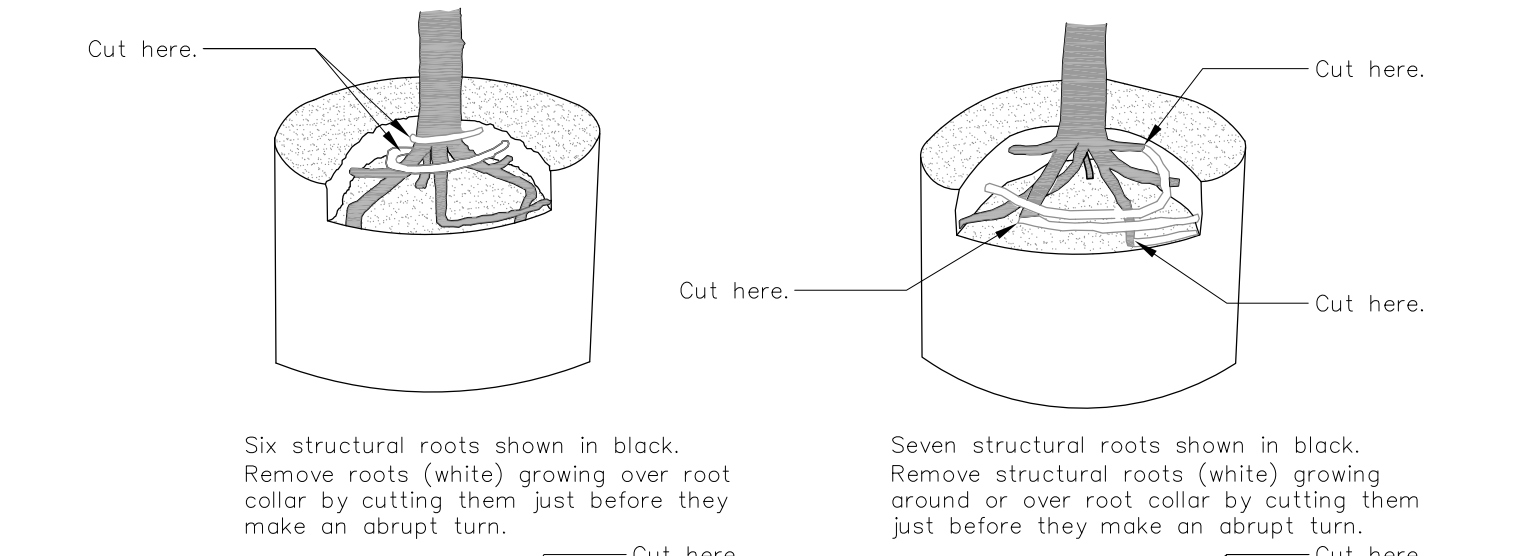
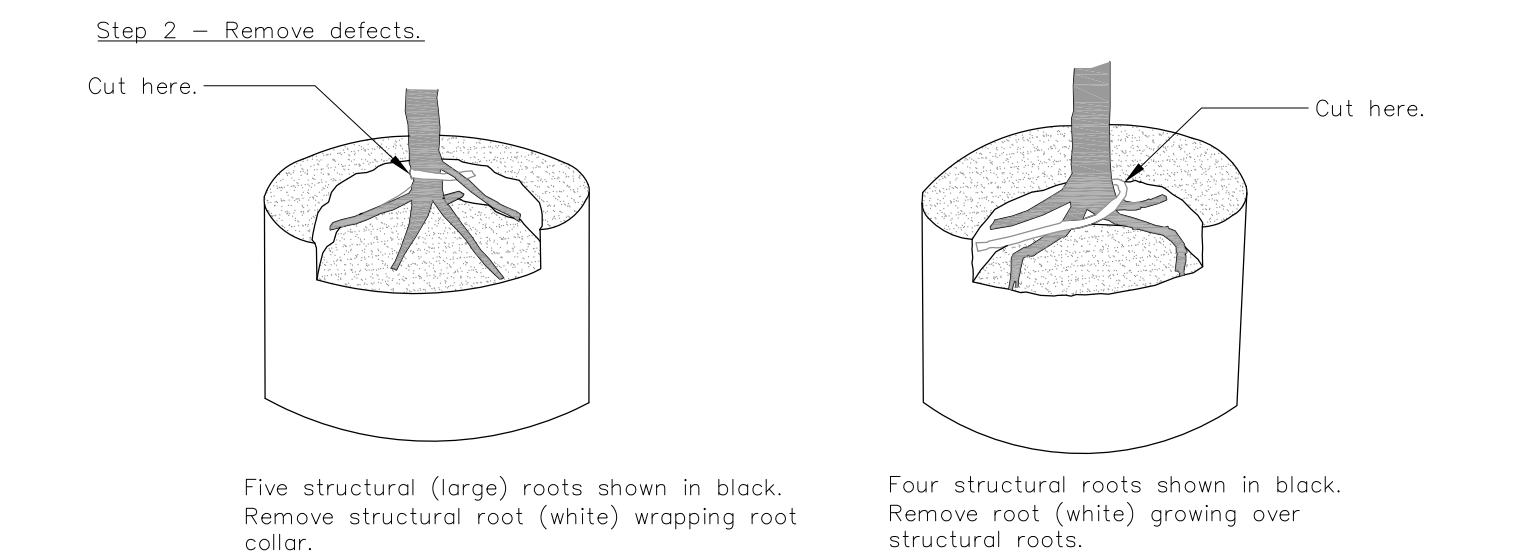
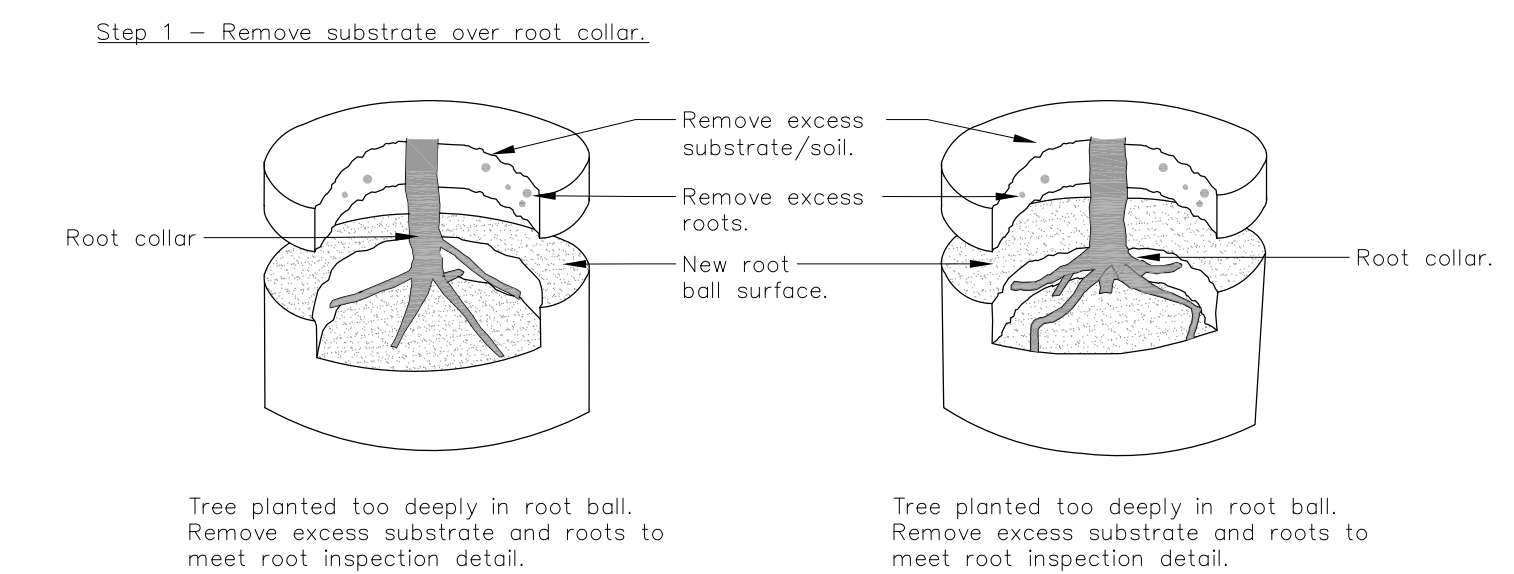
- Notes:
- Aspect ratio shall be less than 0.66 on all branch unions. Aspect ratio is the diameter of branch (B) divided by the diameter of the trunk (A) as measured 1" above the top of the branch union.
  - Any tree not meeting the crown observations detail may be rejected.

CROWN OBSERVATIONS - LOW BRANCHED  
NTS



- Notes:
- Shrubs shall be of quality prescribed in the root observations detail and specifications.
  - See specifications for further requirements related to this detail.

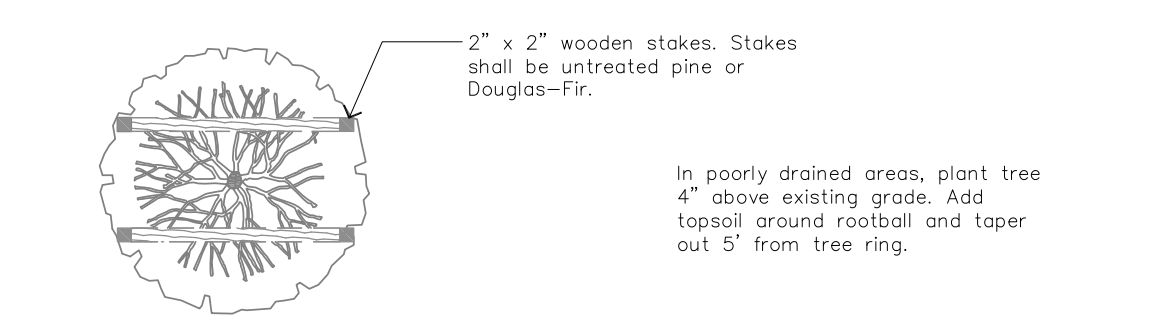
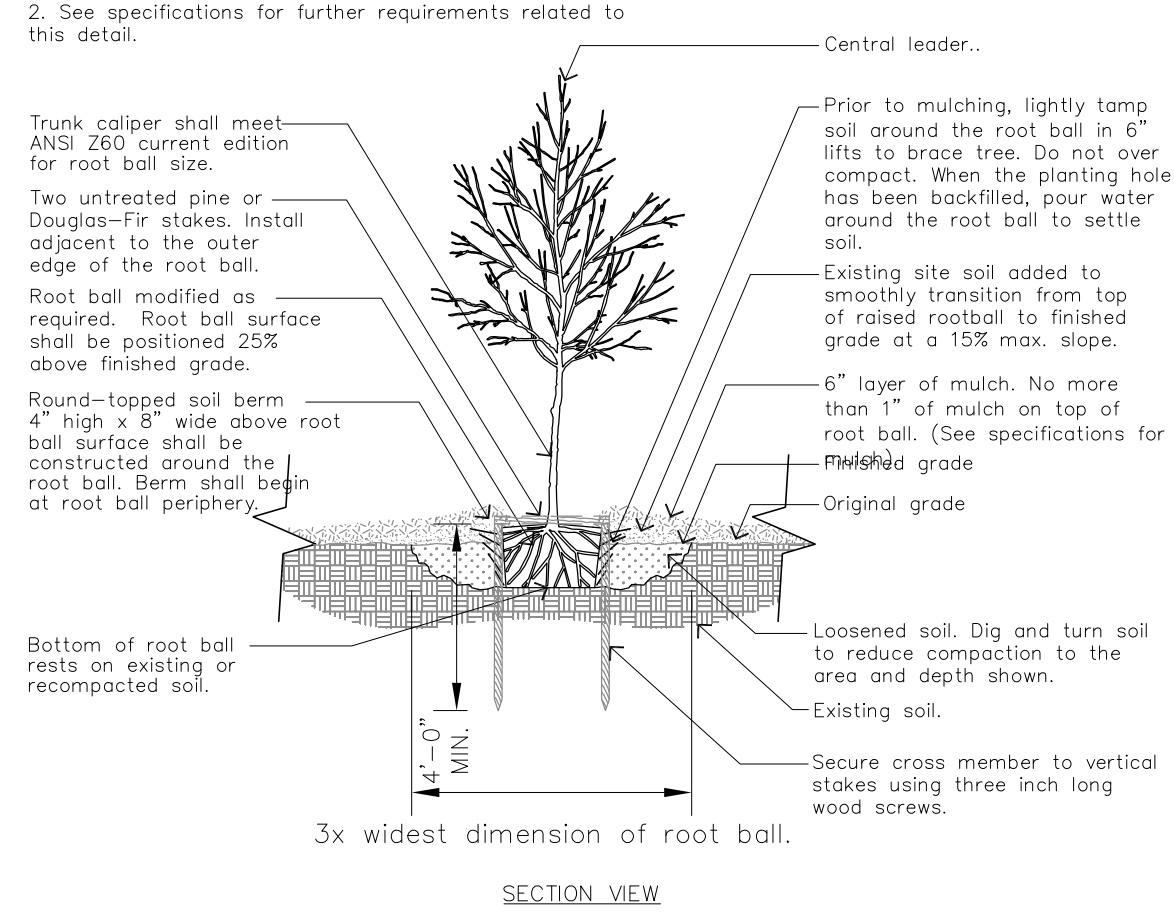
TYPICAL SHRUB / GROUNDCOVER PLANTING DETAIL  
NTS



- Notes:
- All trees shown are rejectable unless they undergo recommended correction.
  - First Step 1, then Step 2. Roots and soil may be removed during the correction process. Substrate/soil shall be replaced after correction has been completed.
  - Trees shall meet root observations detail following correction.
  - Small roots (1/4" or less) on the periphery of the root ball are common with container plant production. These small roots are not defined as "defects" and can be addressed at the time of installation (See root ball shaving container detail).

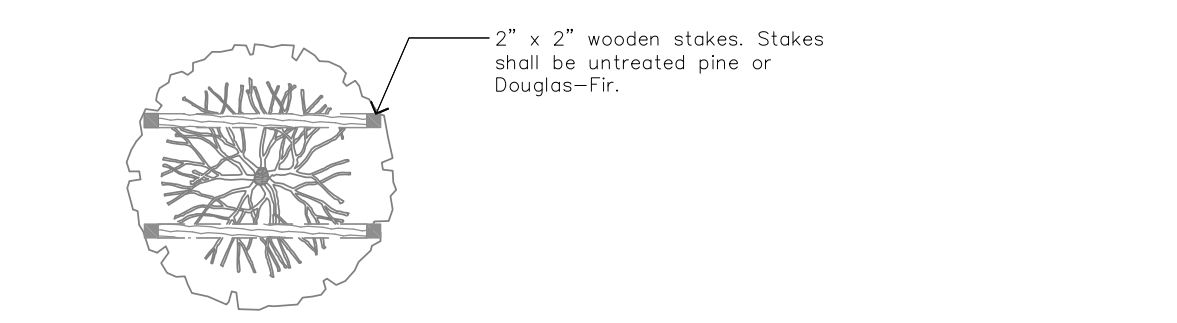
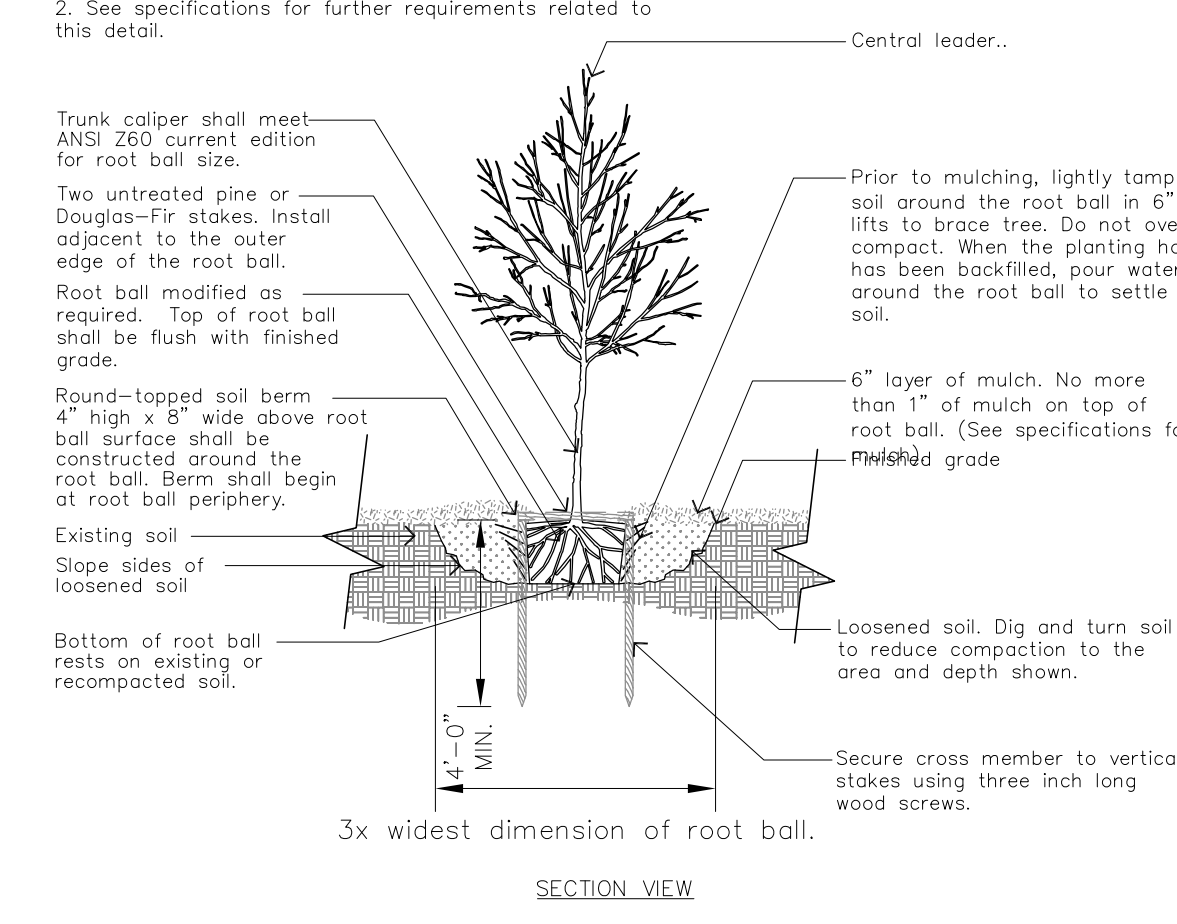
ROOT CORRECTION DETAIL - CONTAINER  
NTS

- Notes:
- Trees shall be of quality prescribed in crown observations and root observations details and specifications.
  - See specifications for further requirements related to this detail.

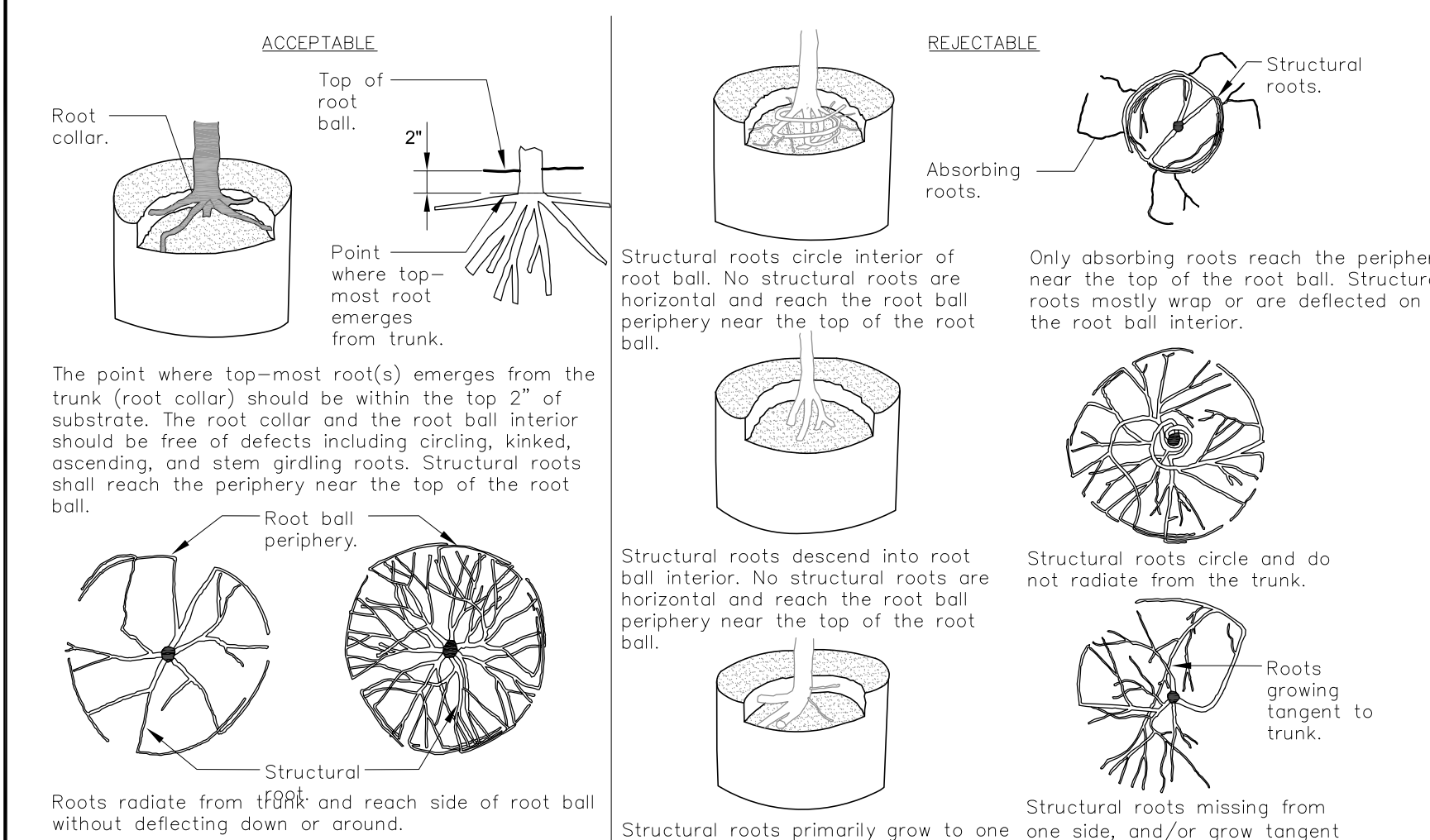


TYPICAL TREE PLANTING IN POORLY DRAINED SOIL  
NTS

- Notes:
- Trees shall be of quality prescribed in crown observations and root observations details and specifications.
  - See specifications for further requirements related to this detail.



TYPICAL TREE PLANTING FOR UNDISTURBED SOIL  
NTS



- Notes:
- Observations of roots shall occur prior to acceptance. Roots and substrate may be removed during the observation process. Substrate/soil shall be replaced after observation has been completed.
  - Small roots (1/4" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. (See root ball shaving container detail).
  - See specifications for observation process and requirements.

ROOT OBSERVATIONS DETAIL - CONTAINER  
NTS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES:	HDM
DRN:	TLD
CKD:	HDM
DATE:	11/7/18

CITY of TAMPA  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division



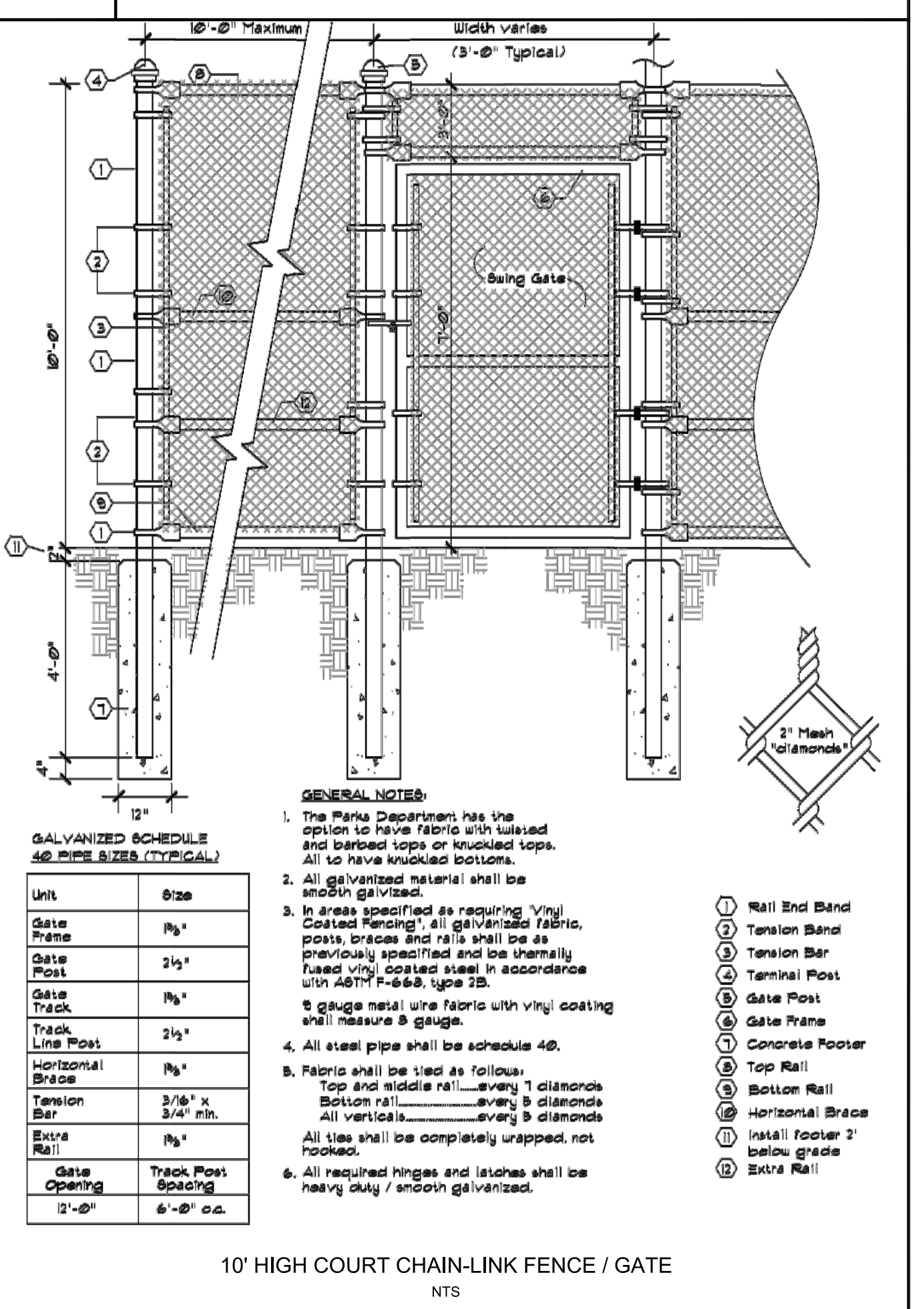
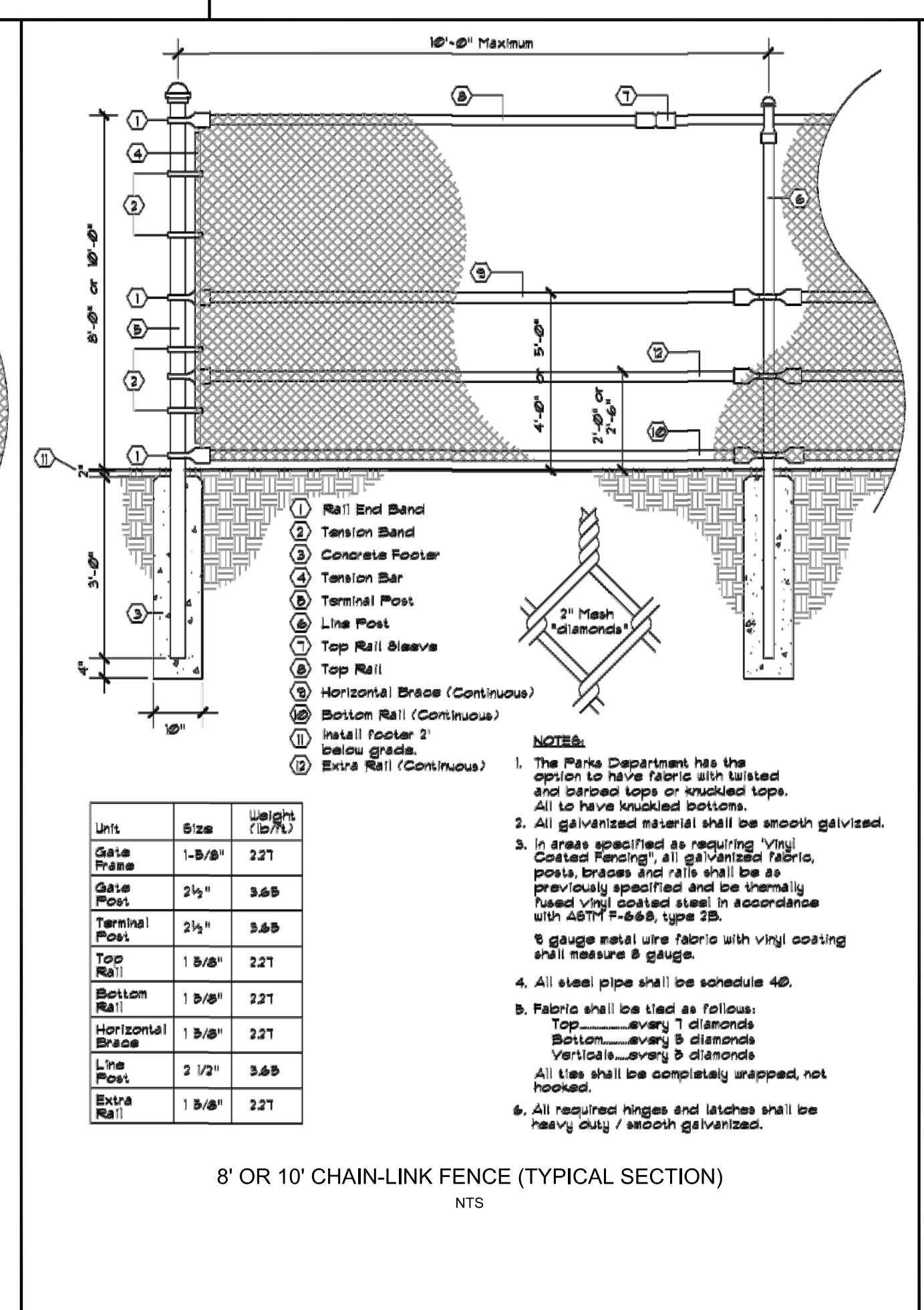
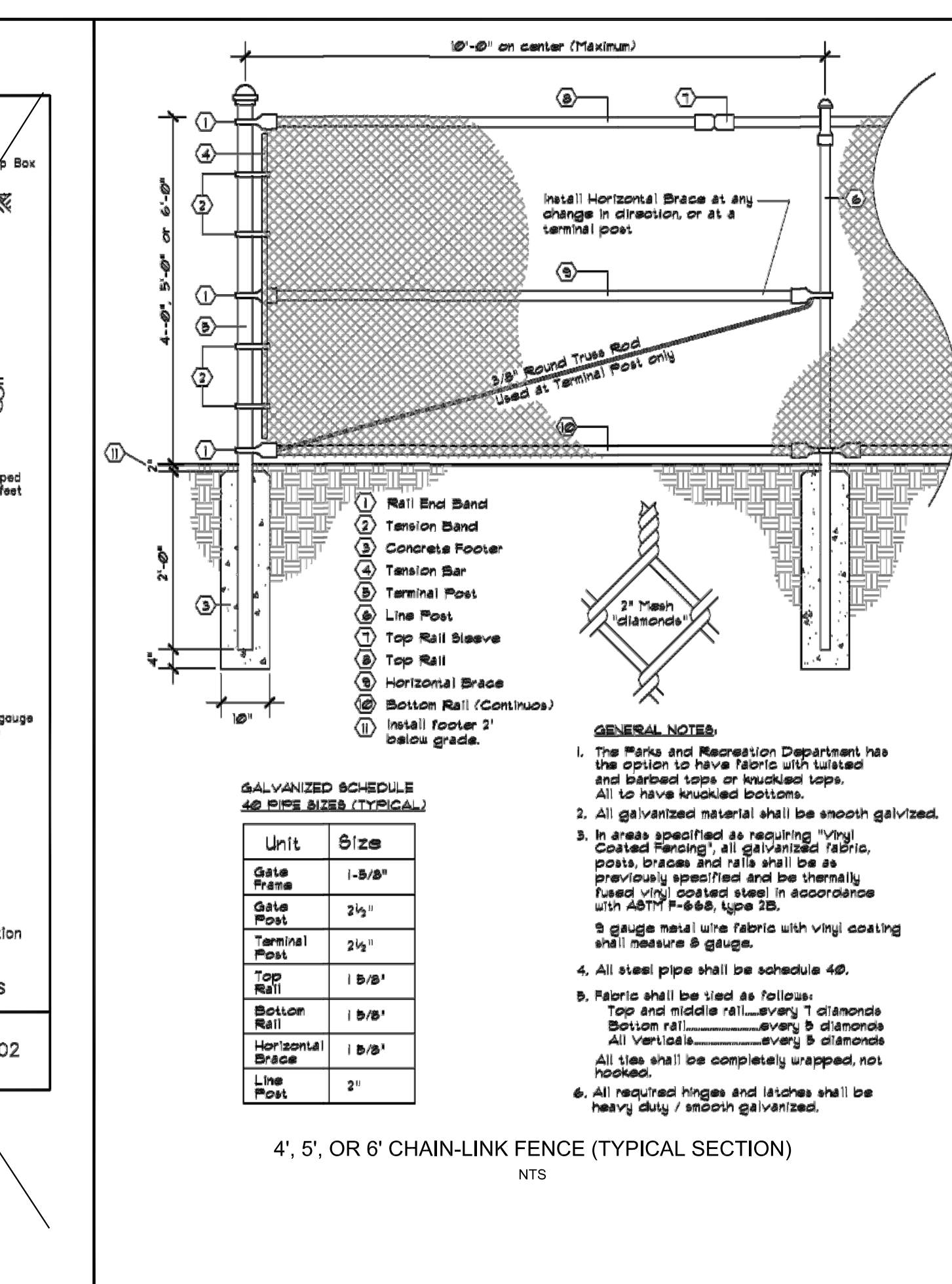
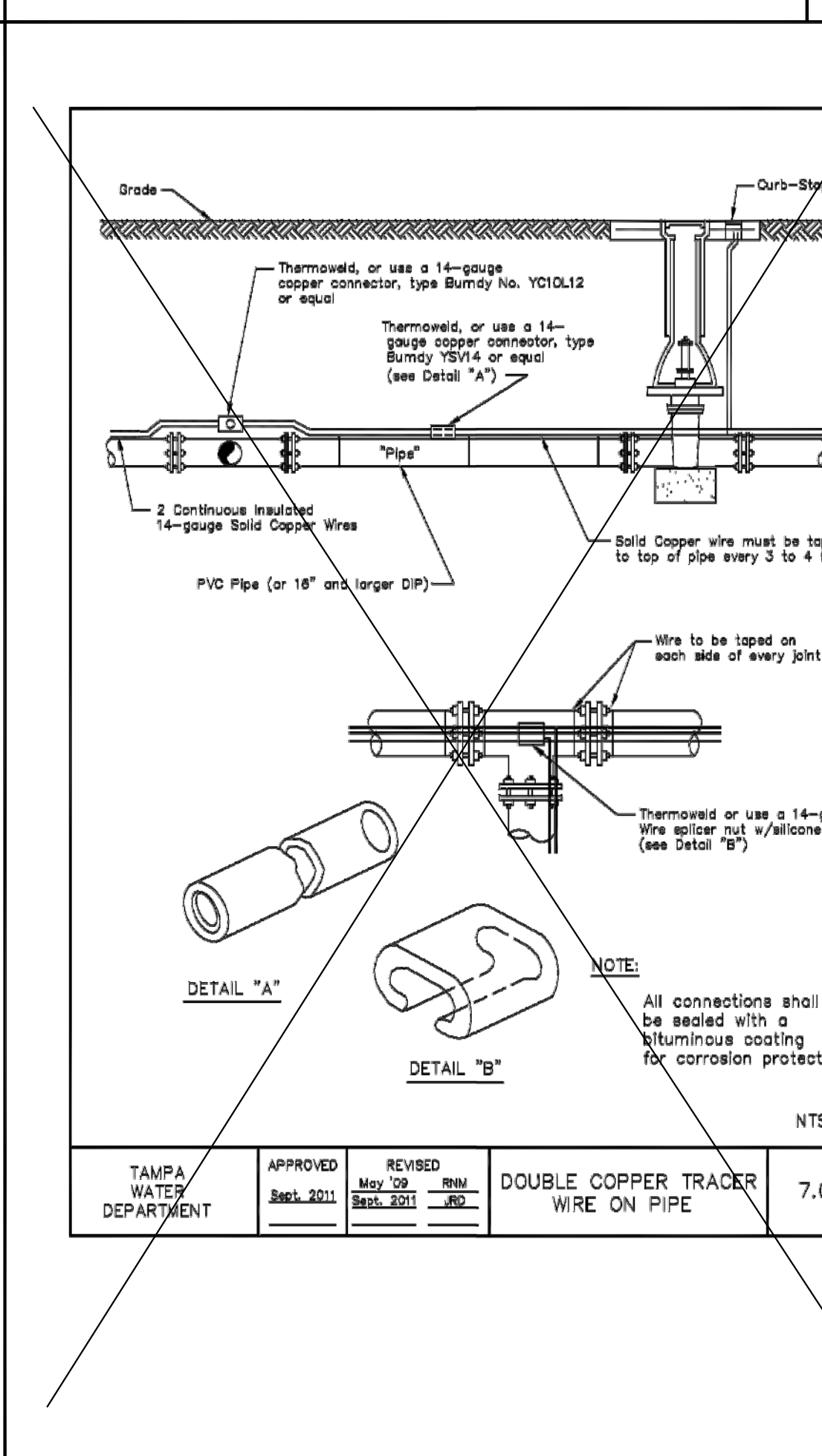
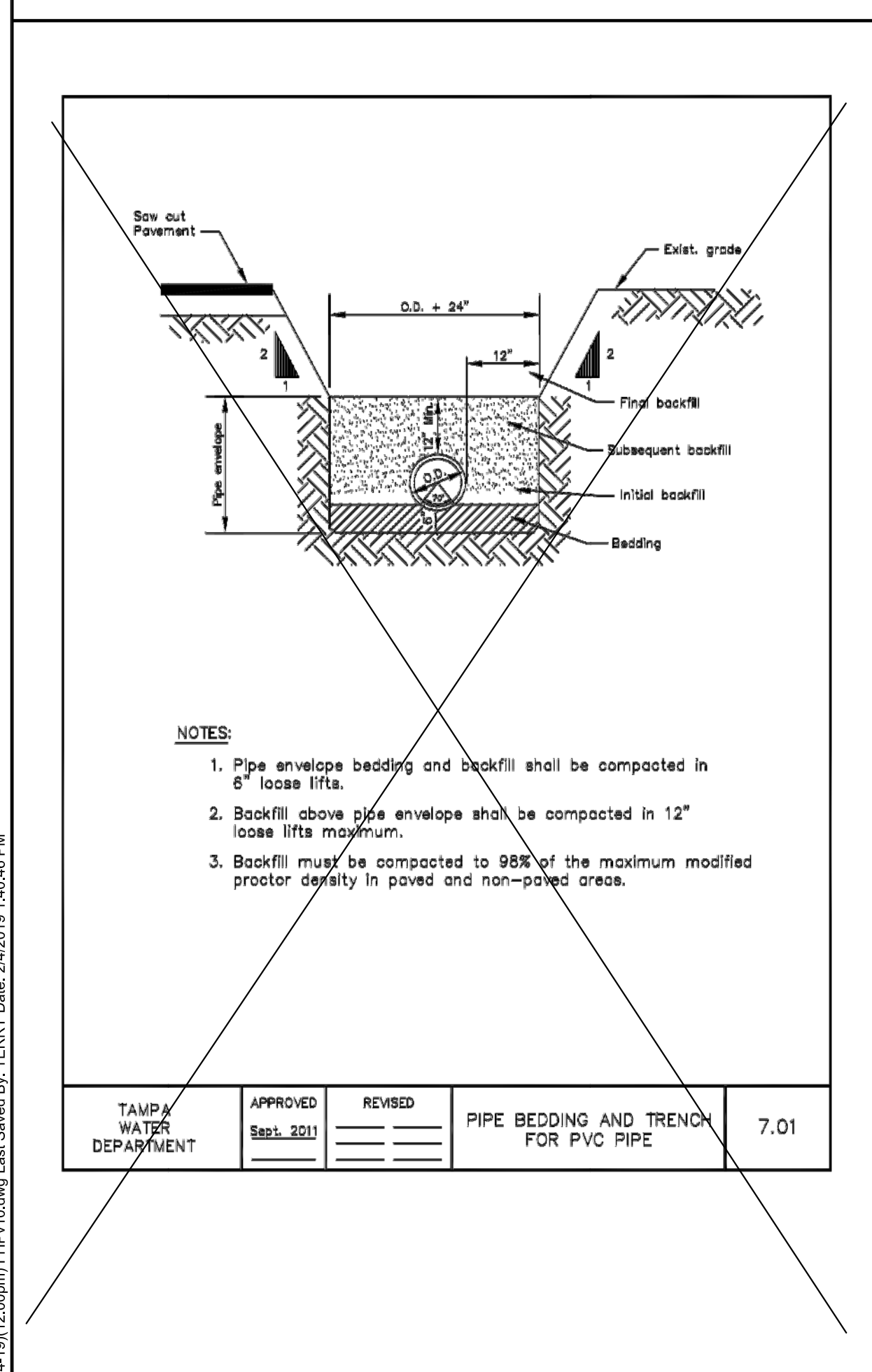
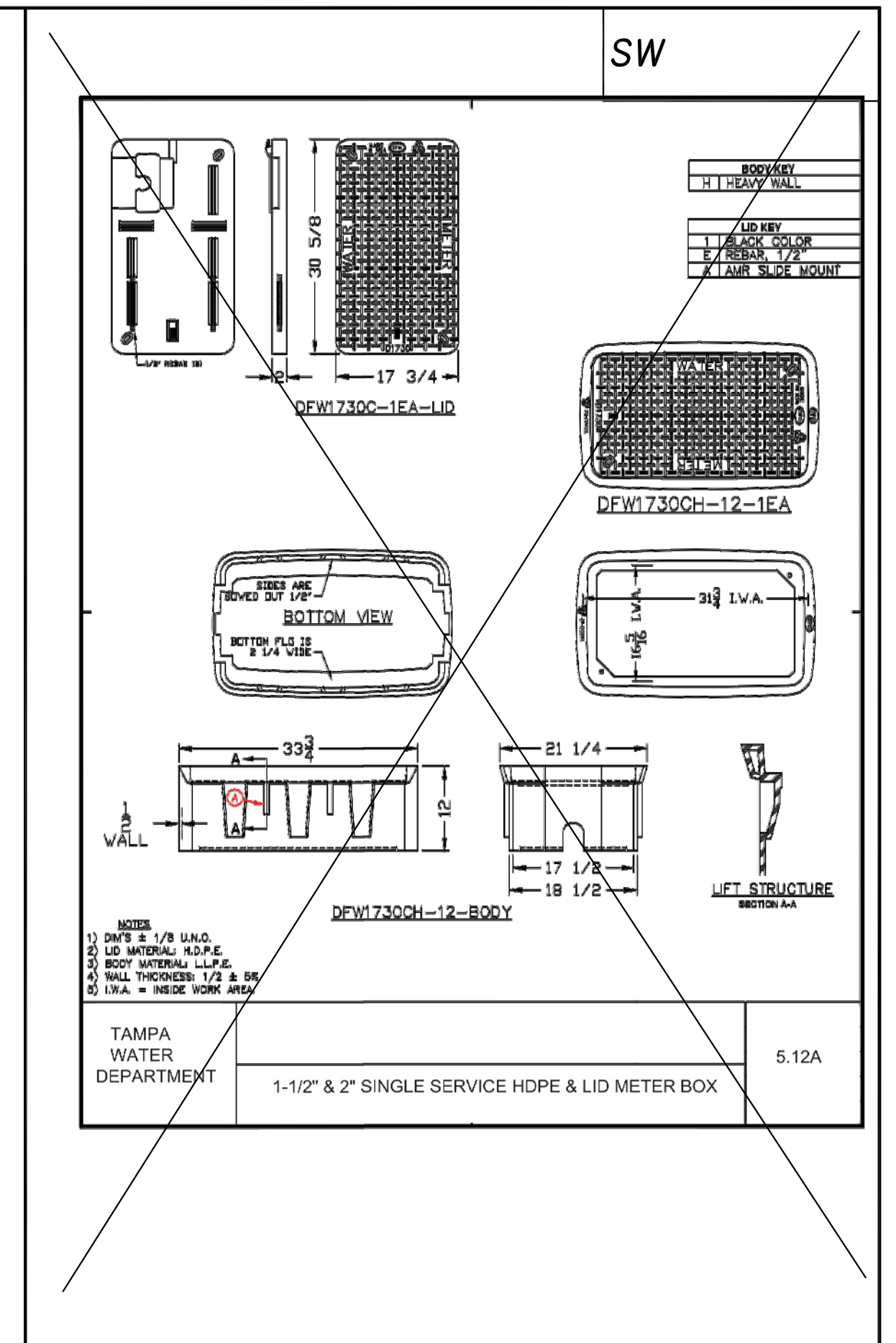
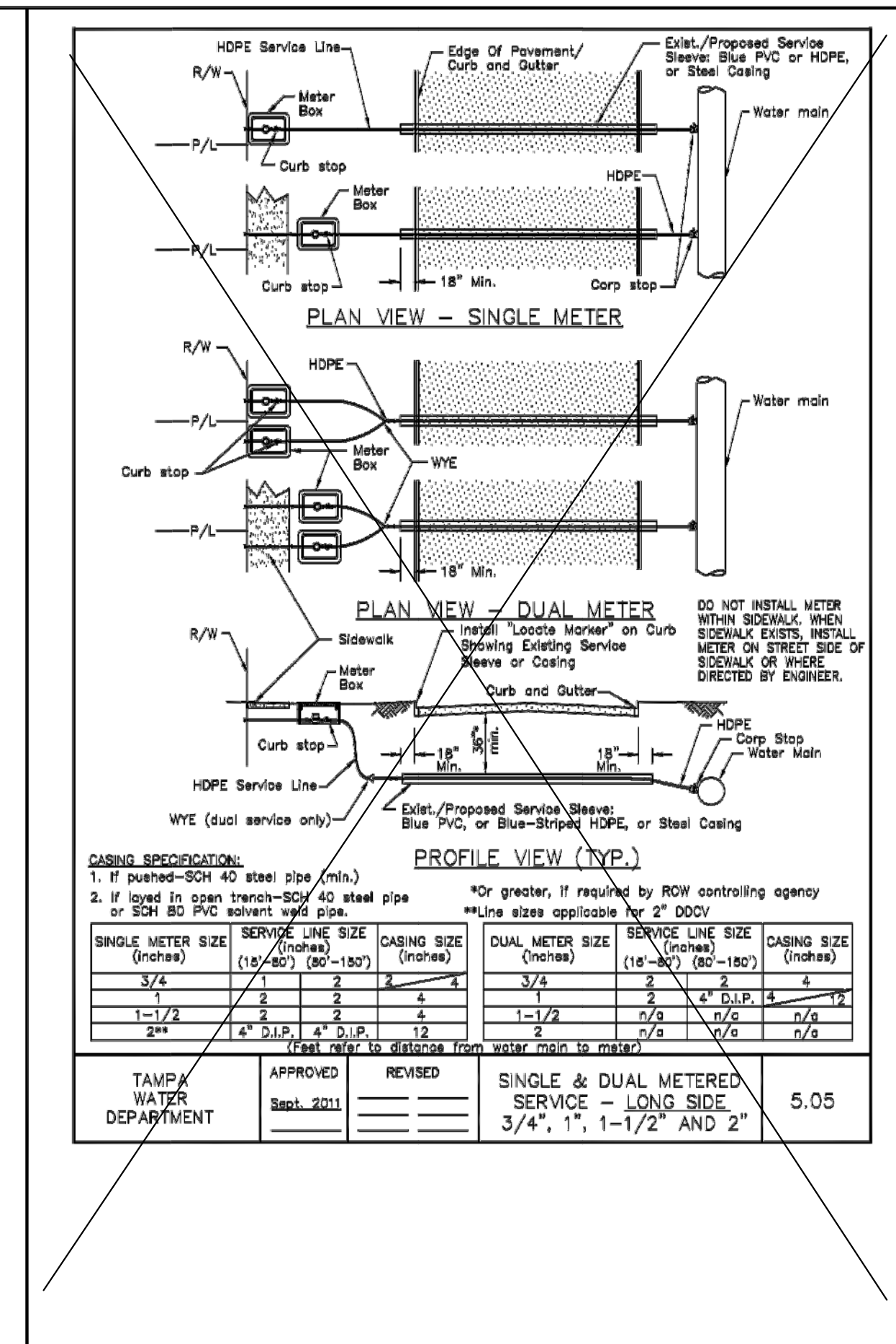
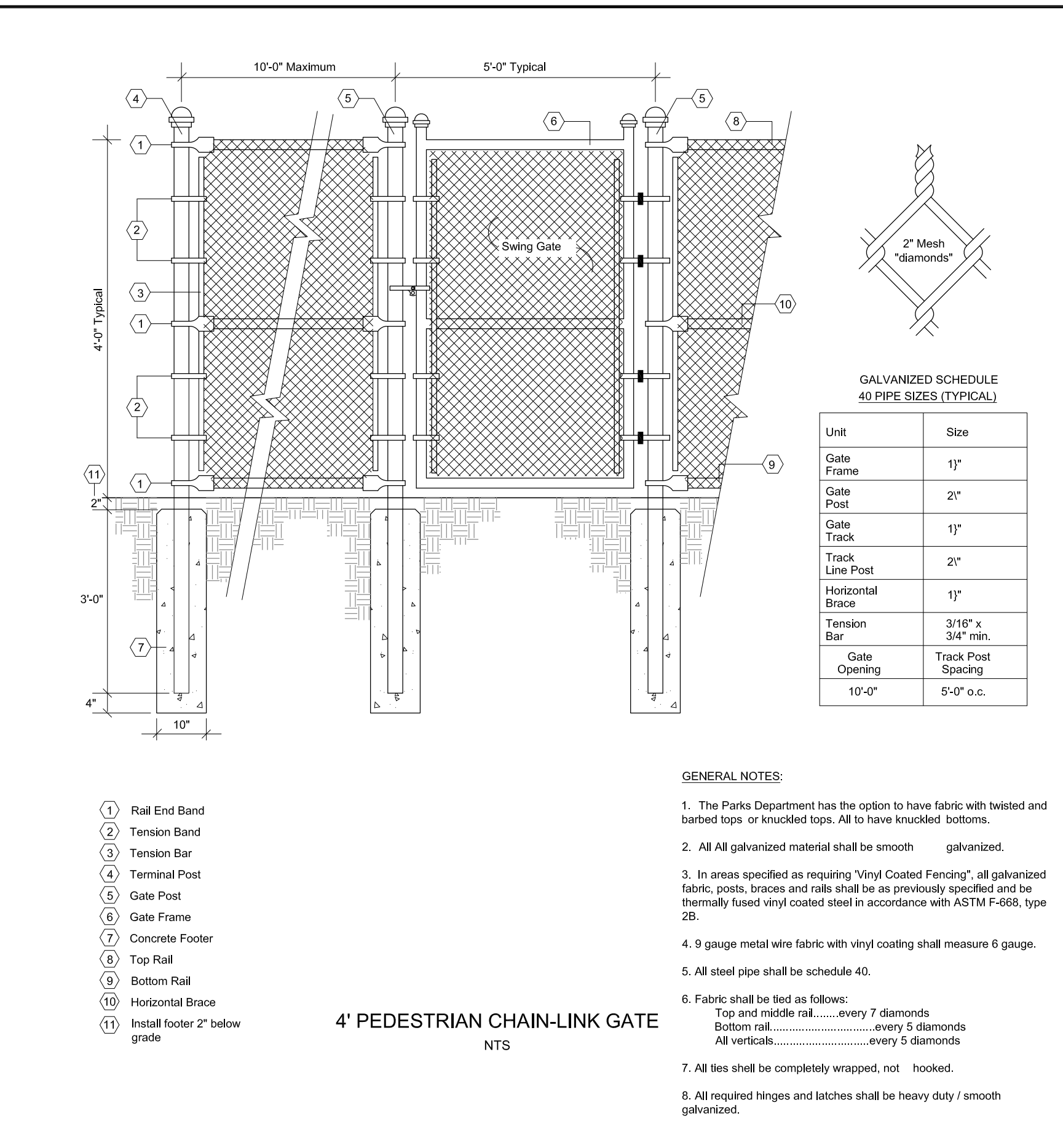
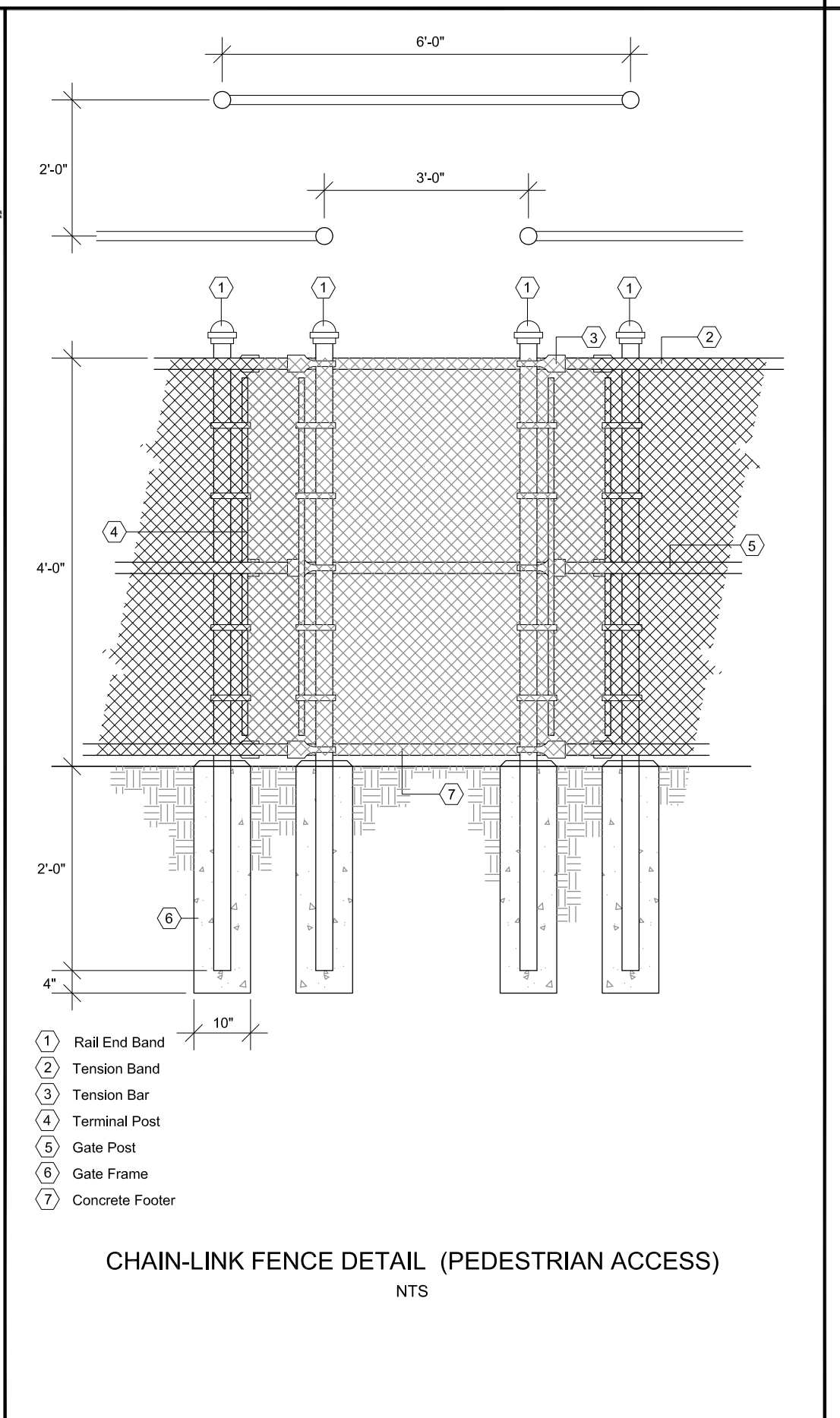
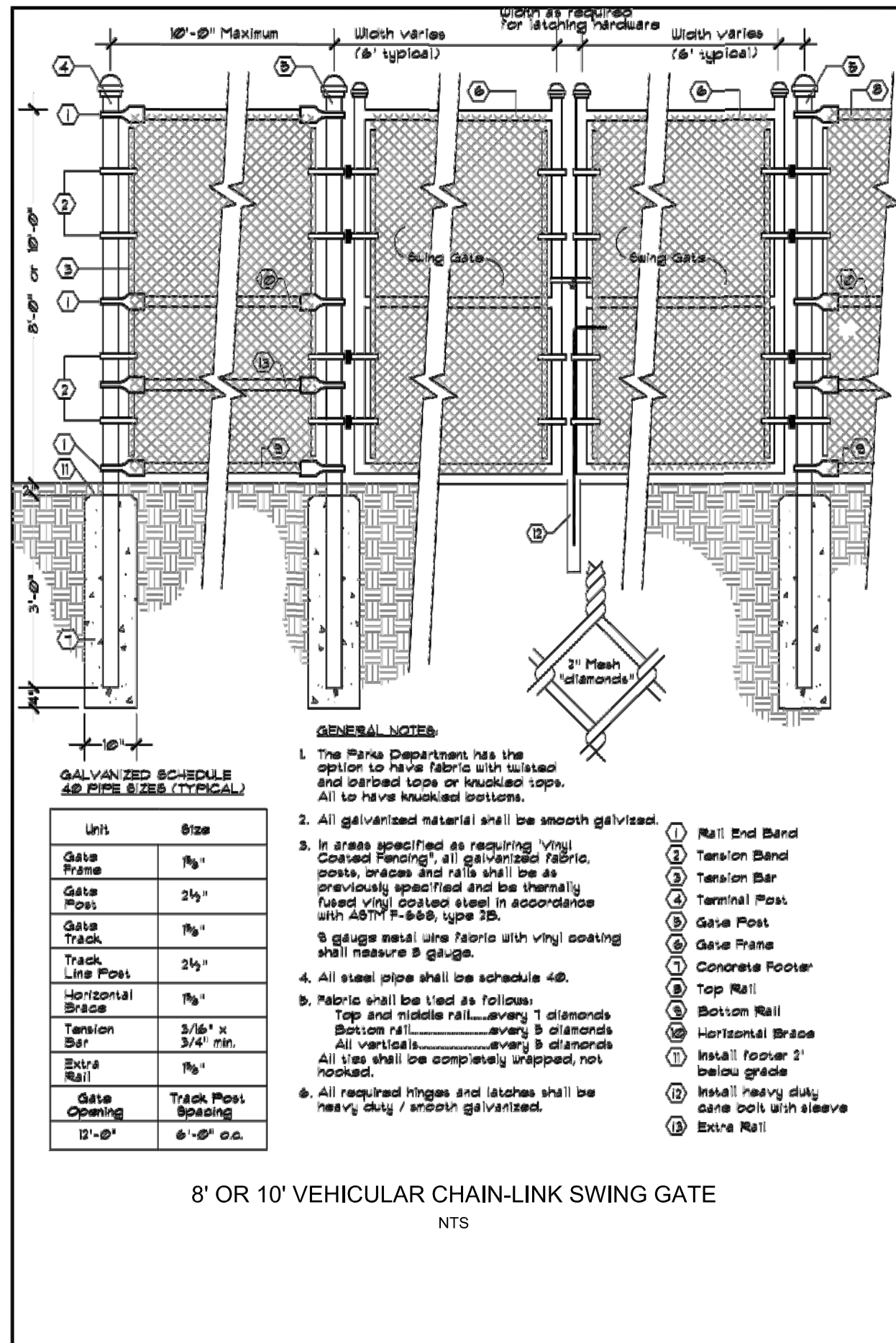
P.O. Box  
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duane@mphcivil.com  
Florida CA No.: 30727

ENGINEER-OF-RECORD

H. DUANE MILFORD  
P.E. # 42657

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OF  
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ENGINEER-OF-RECORD: H. DUANE MILFORD P.E. # 42657

DESIGNER: HDM, DRN: TLD, CKD: HDM, DATE: 11/7/18

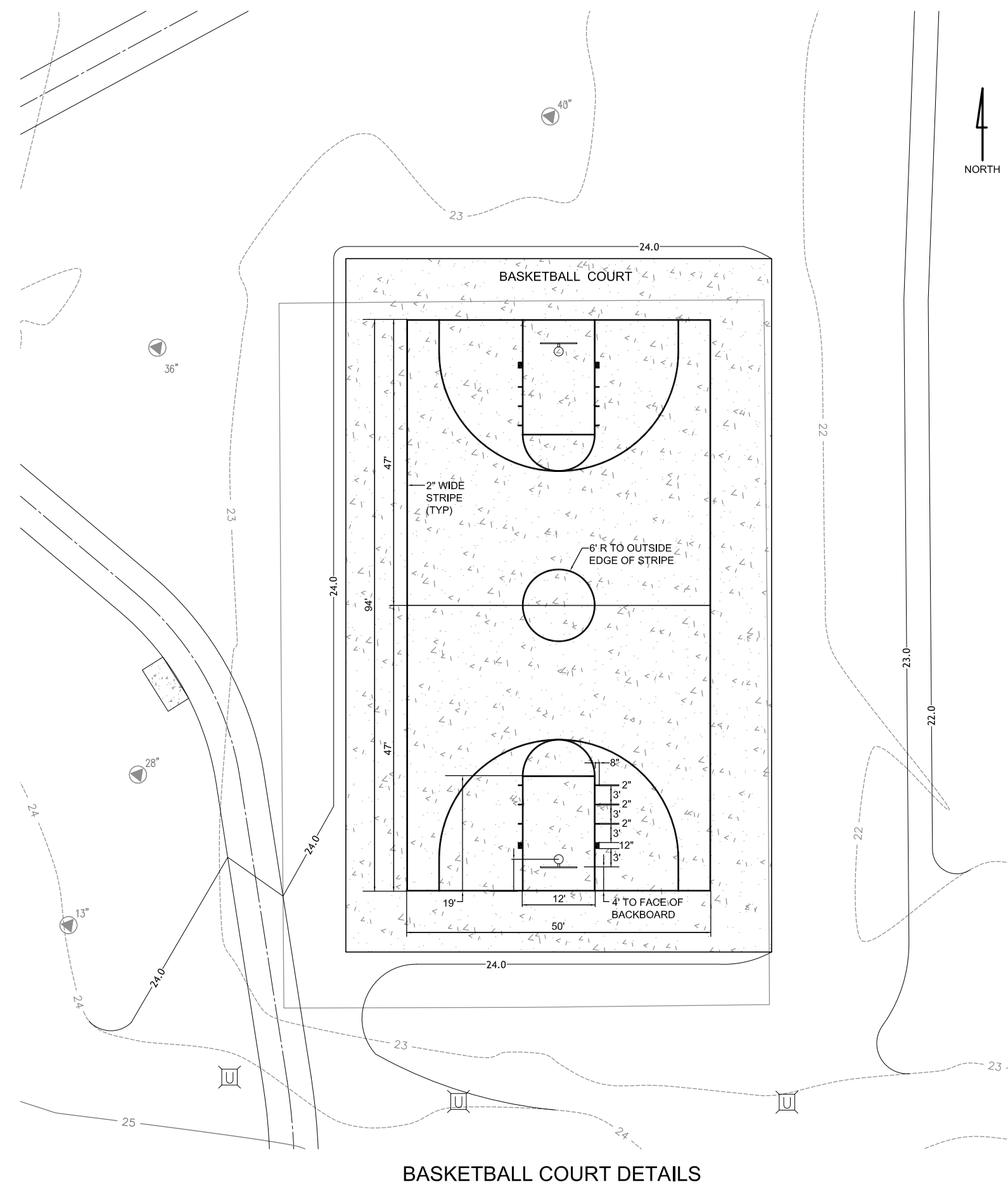
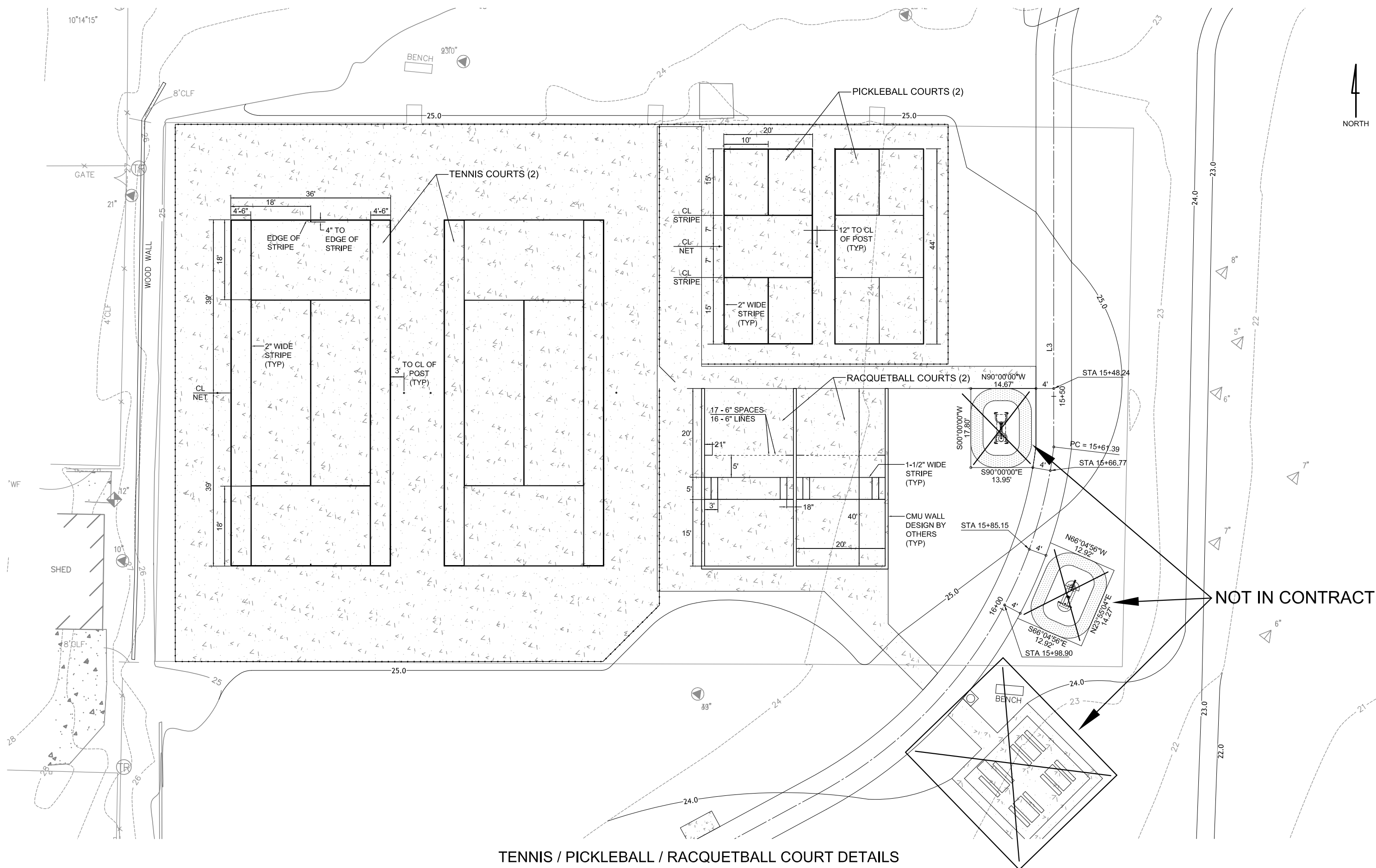
CITY OF TAMPA  
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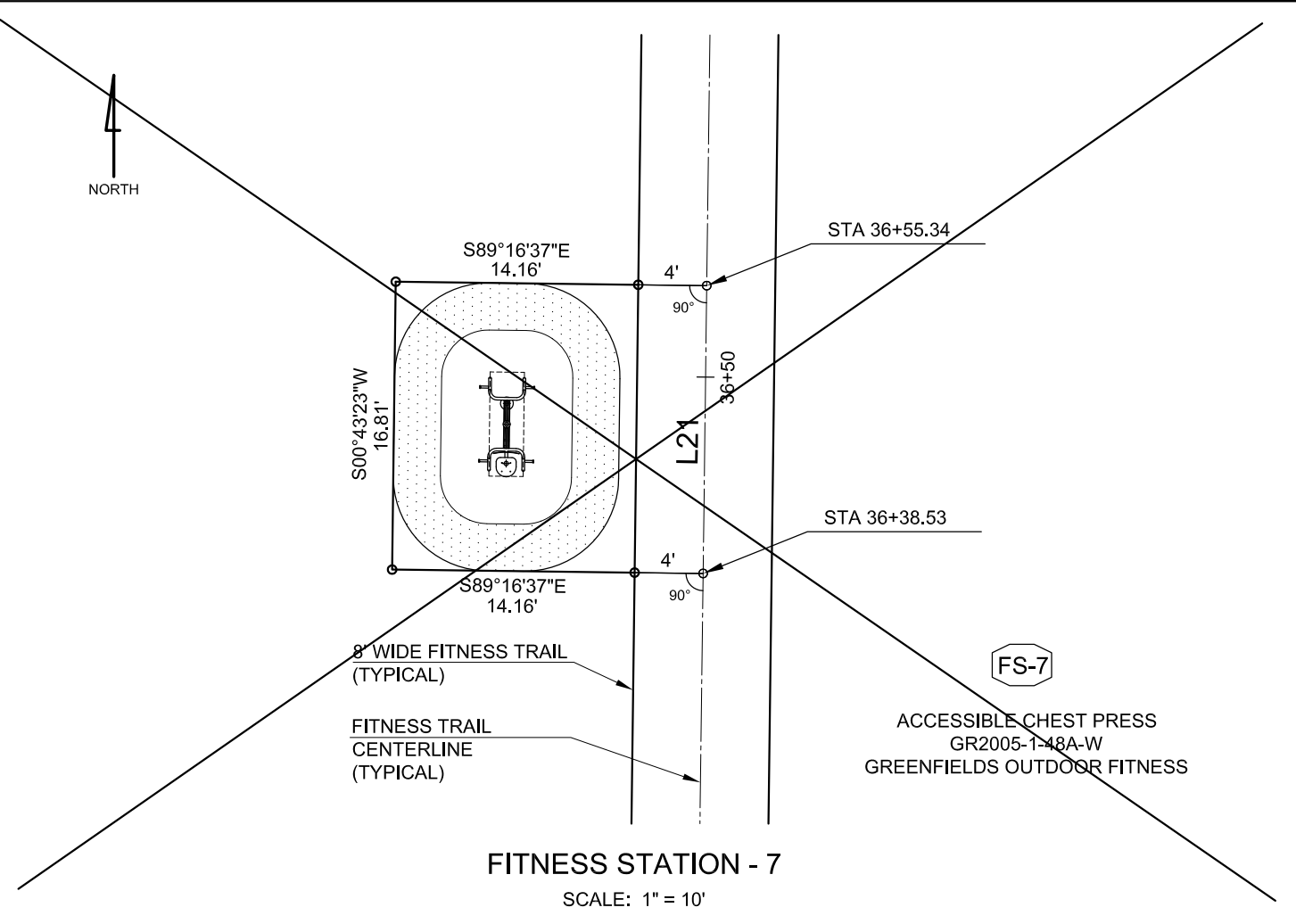
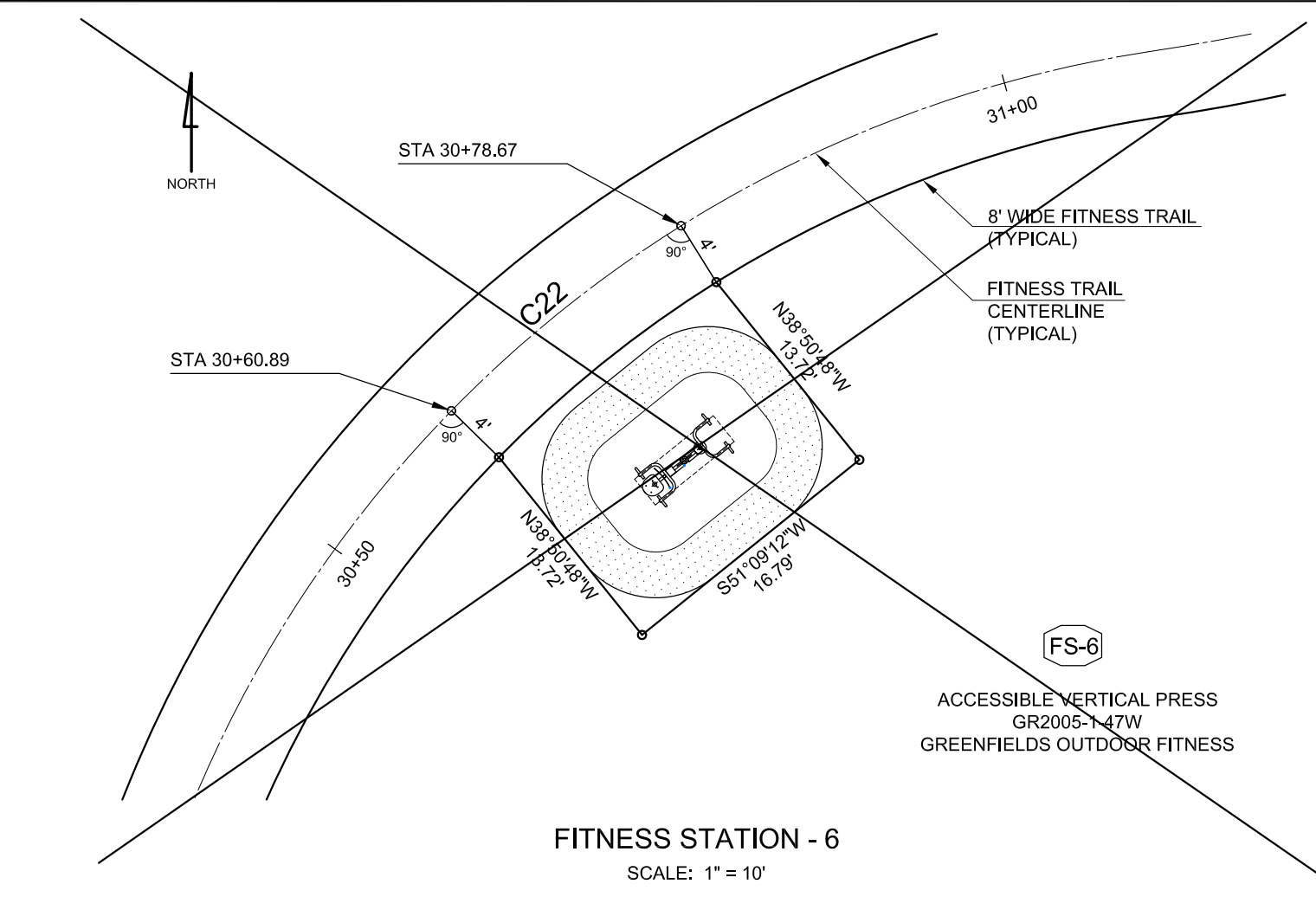
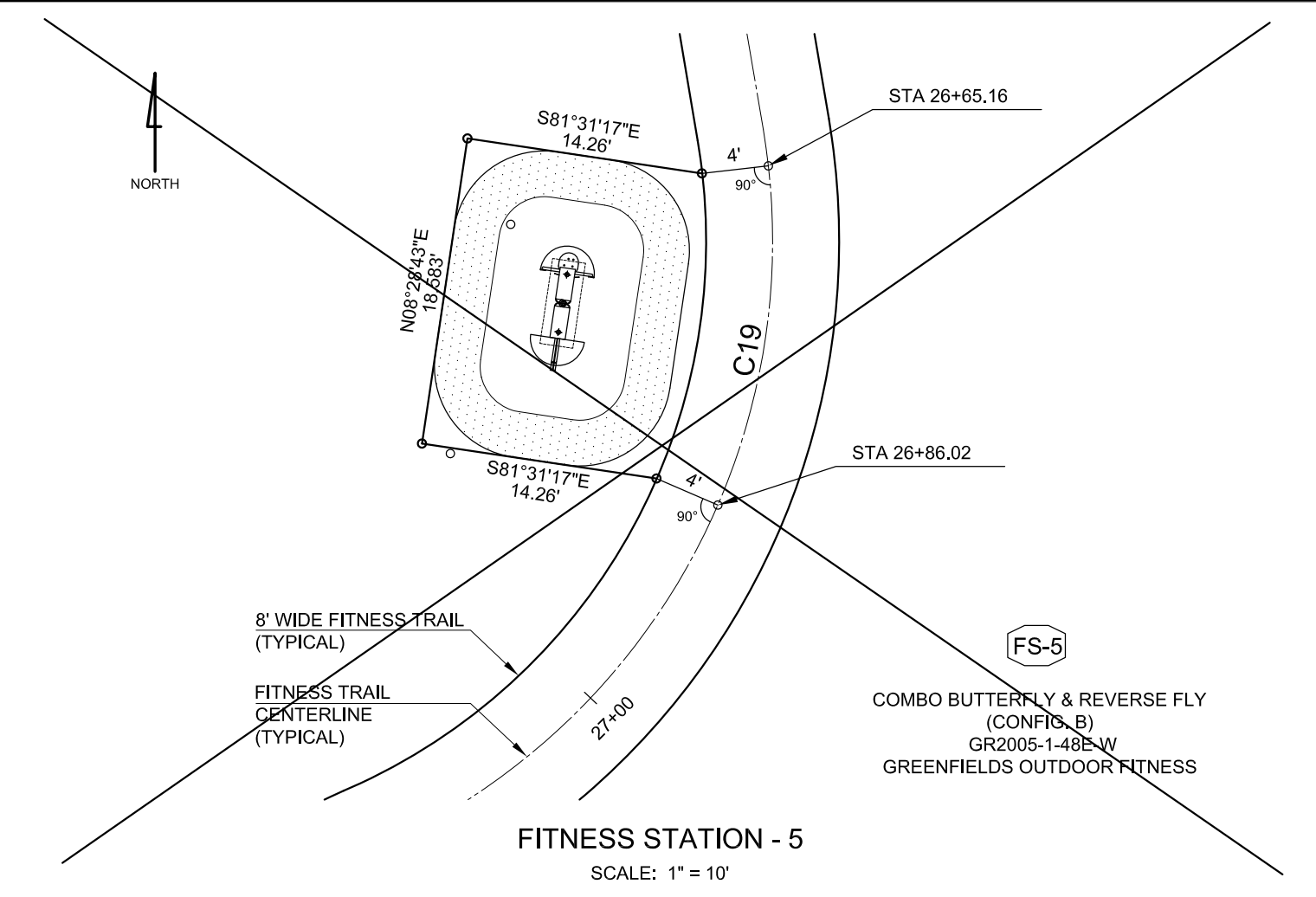
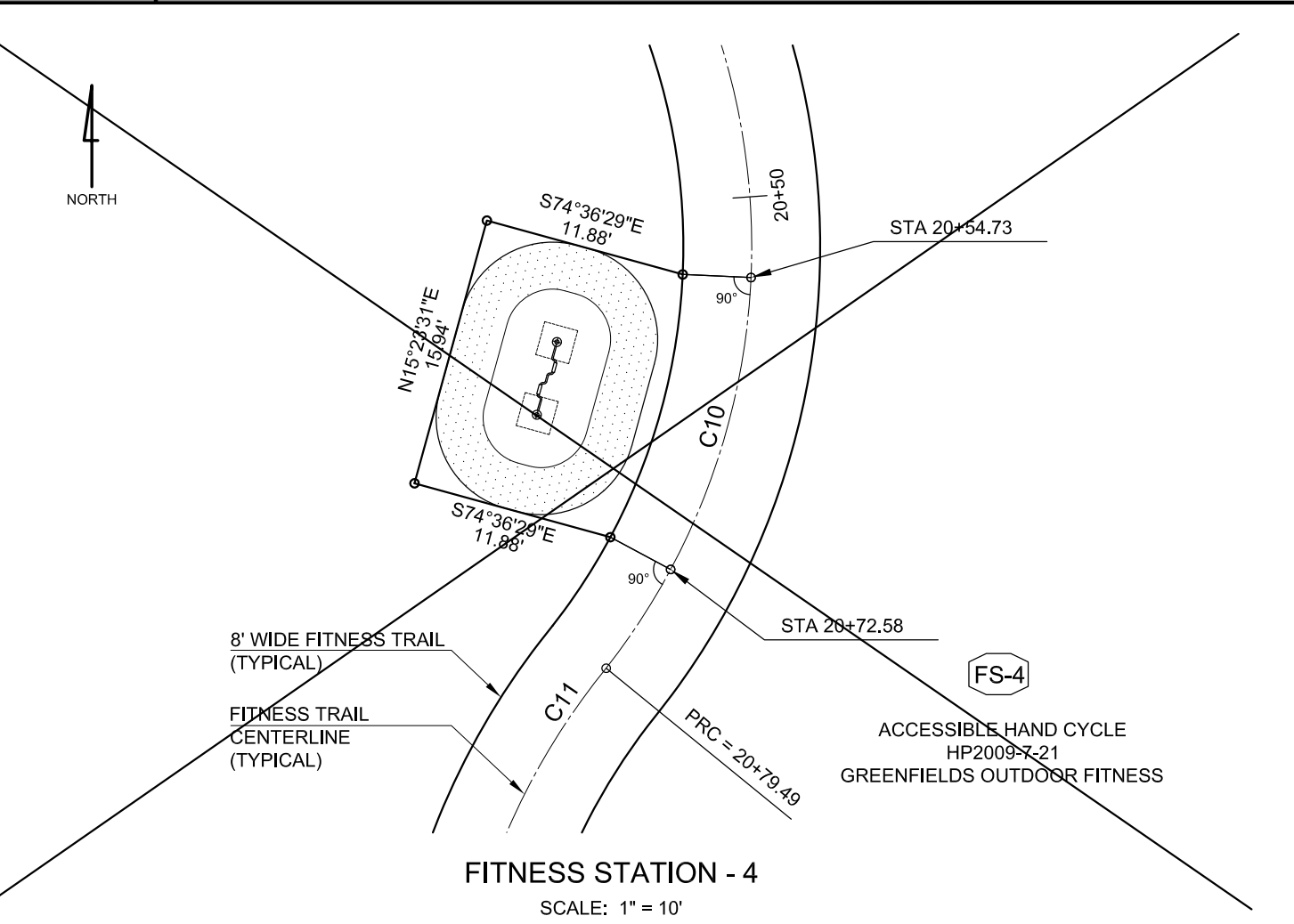
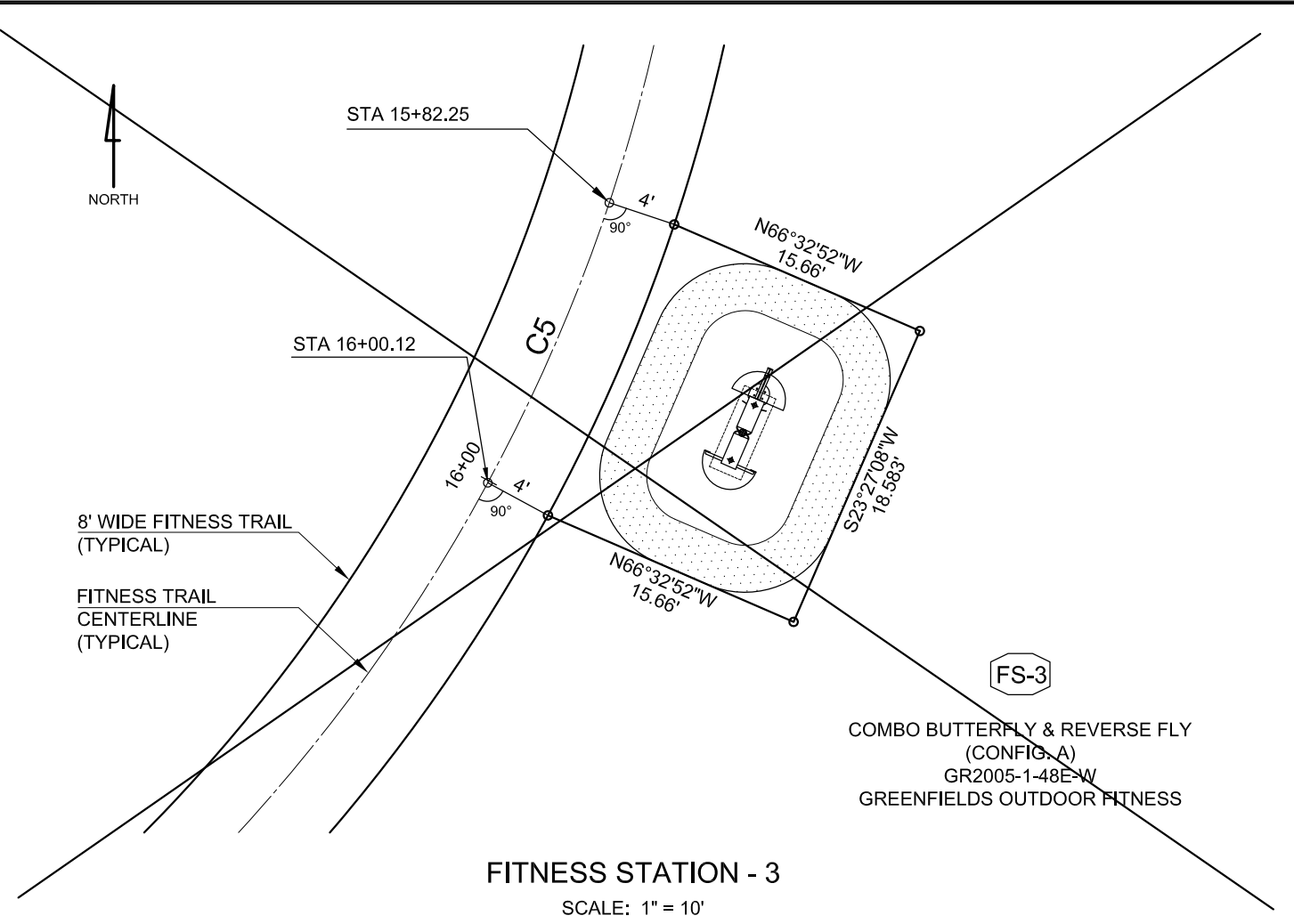
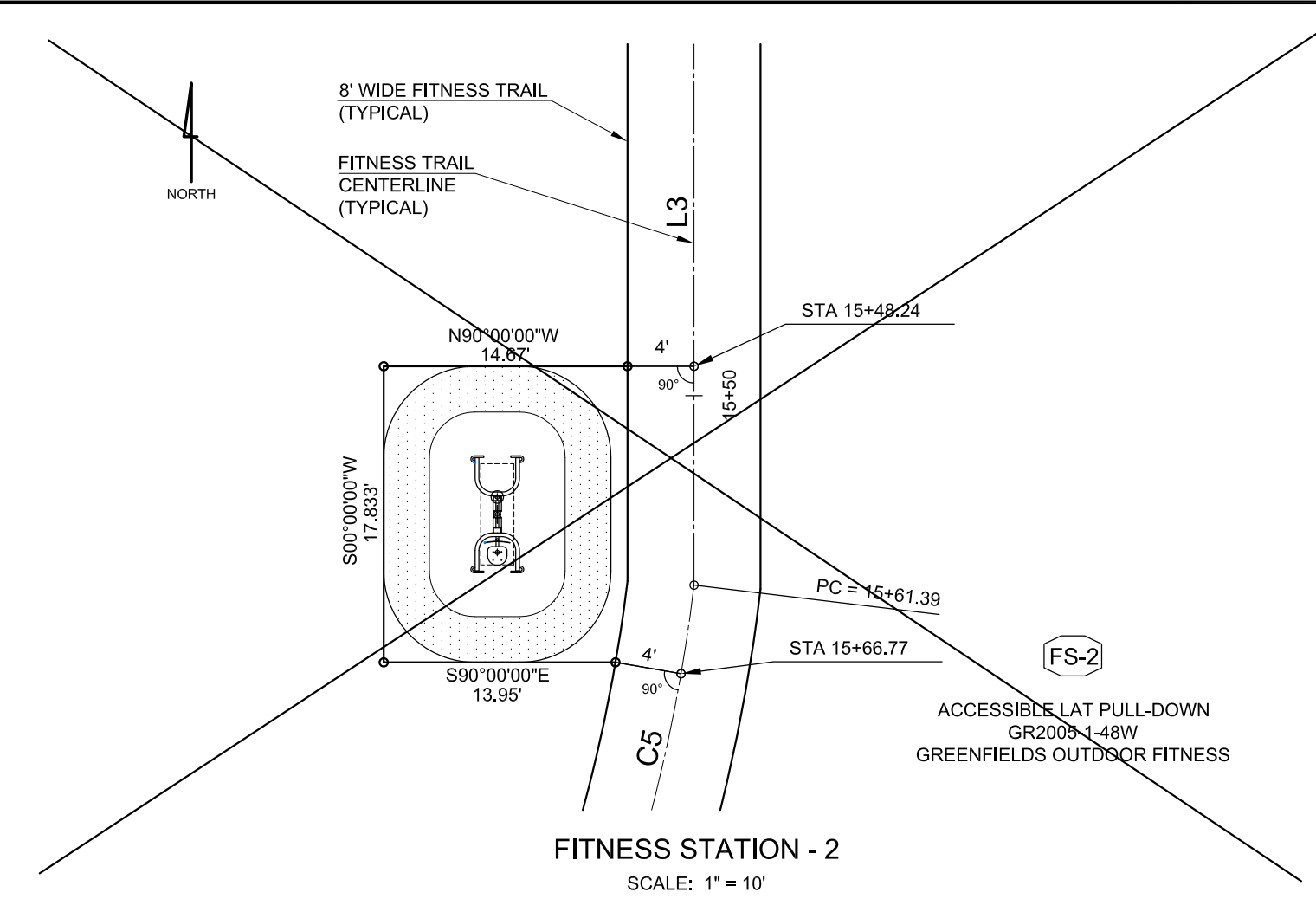
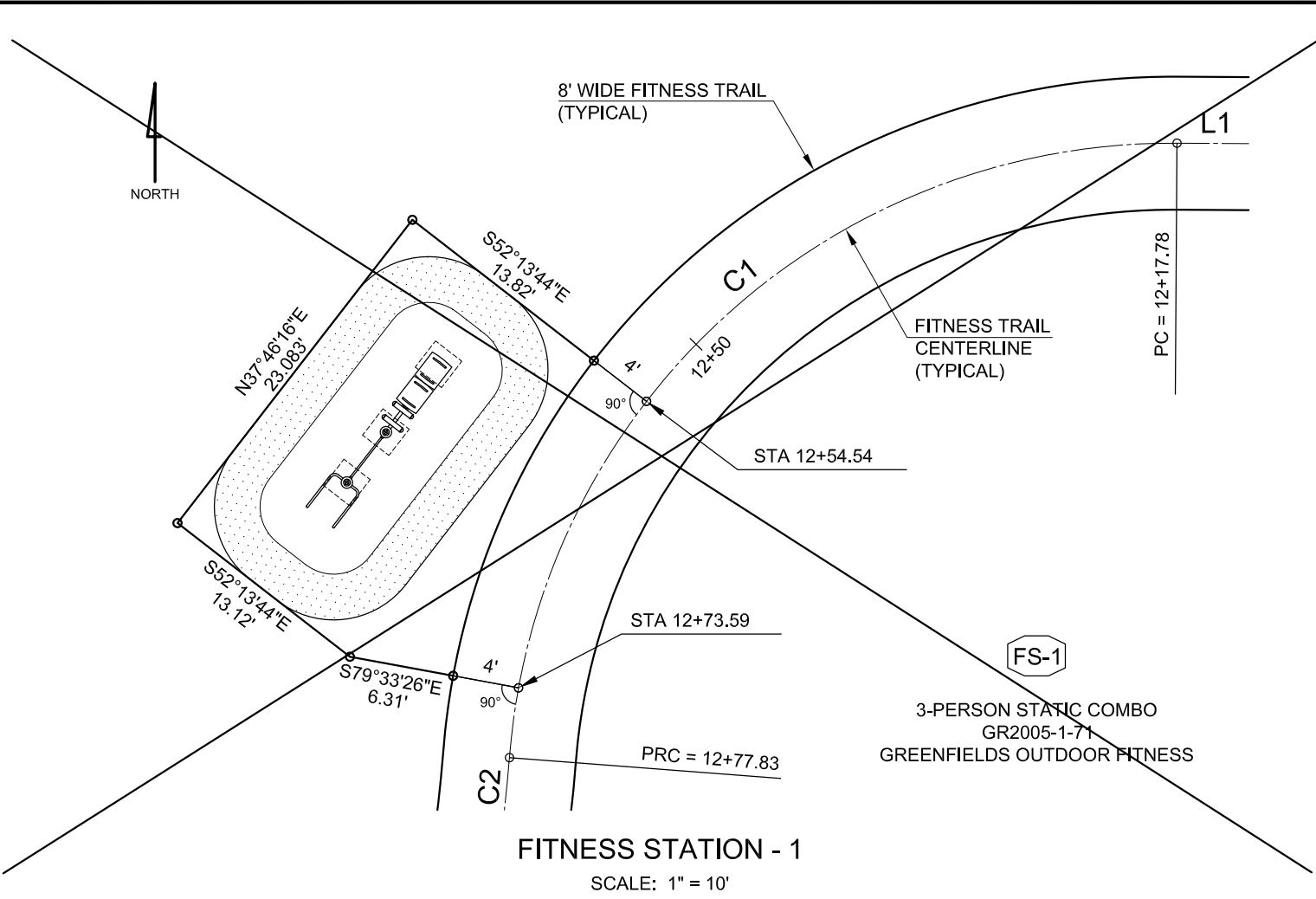
REVISIONS FOR CONTRACT / BID

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1	2/8/19	REVISIONS FOR CONTRACT / BID	4		

DETAILS SHEET 19 OF 21



NOT IN CONTRACT



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H. DUANE MILFORD  
P.E. # 42657

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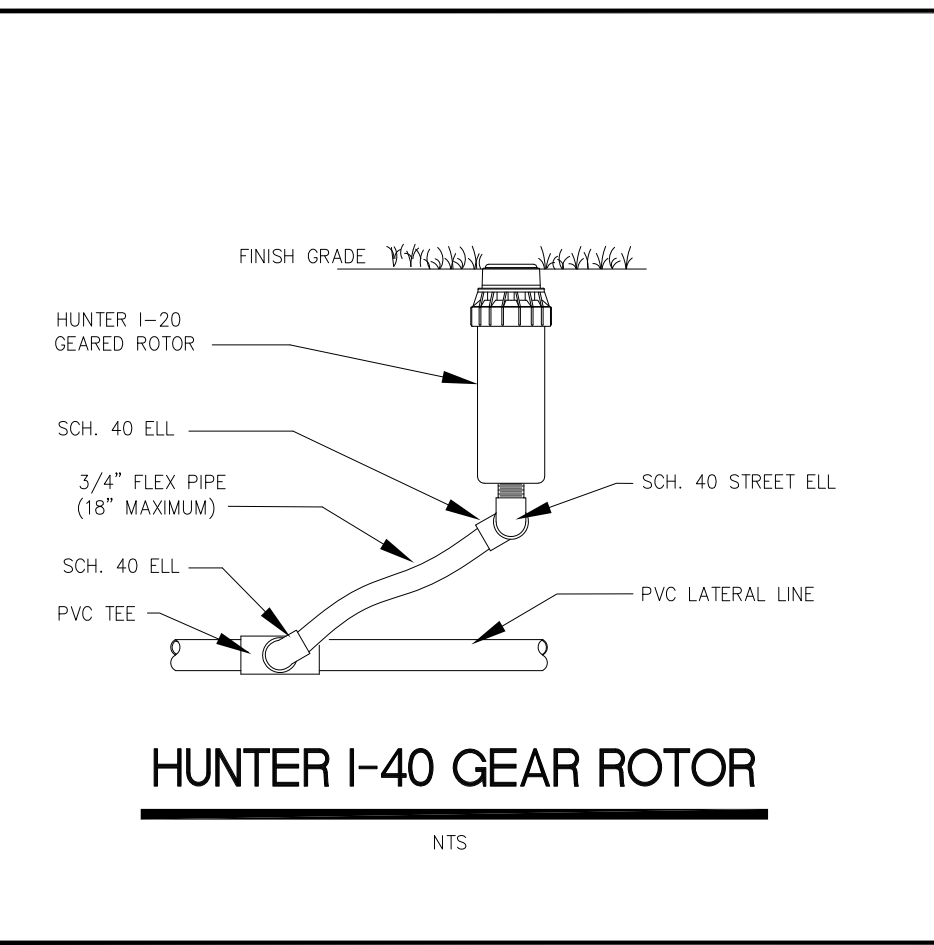
CITY of TAMPA  
Department of Transportation  
and Stormwater Services  
Stormwater Engineering Division



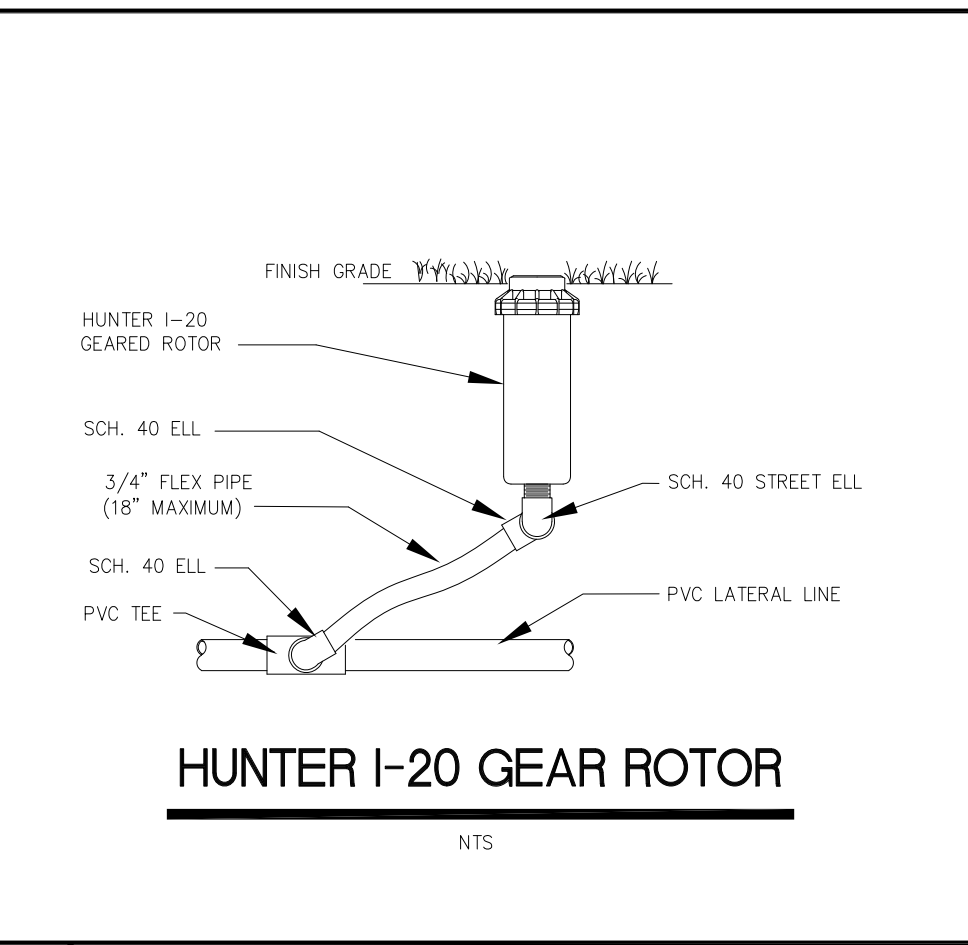
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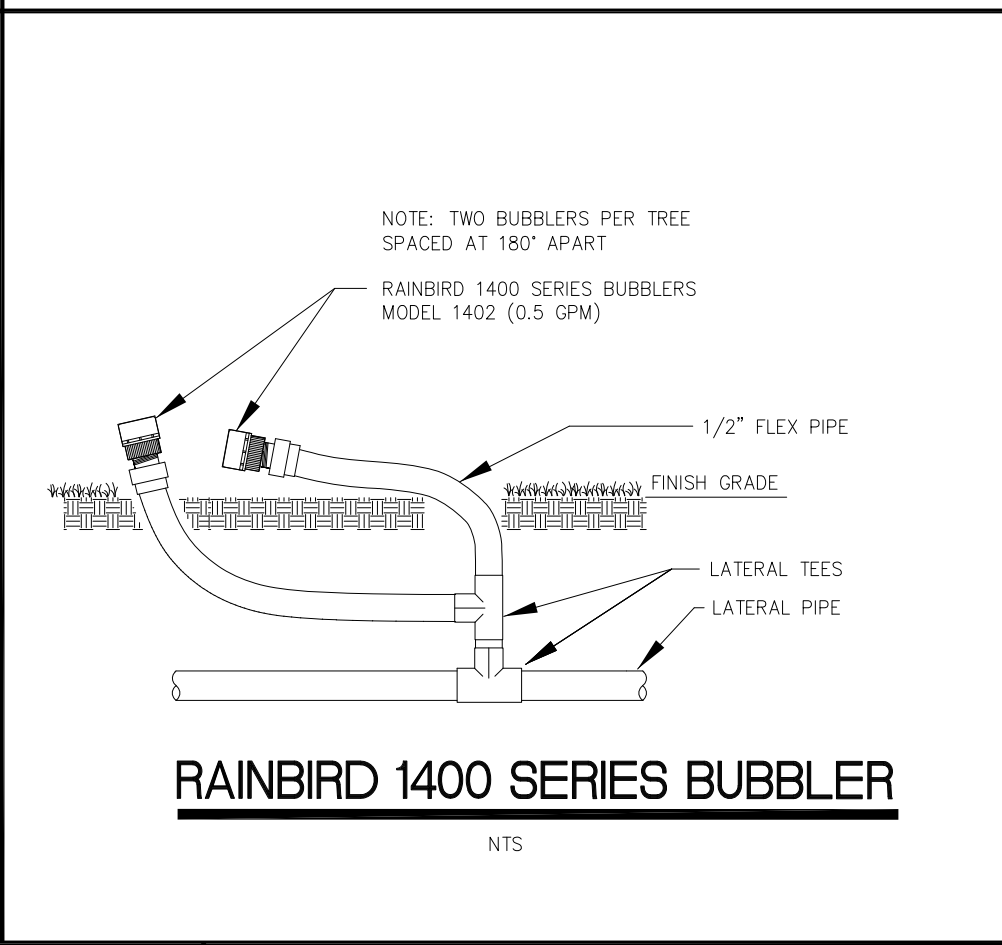
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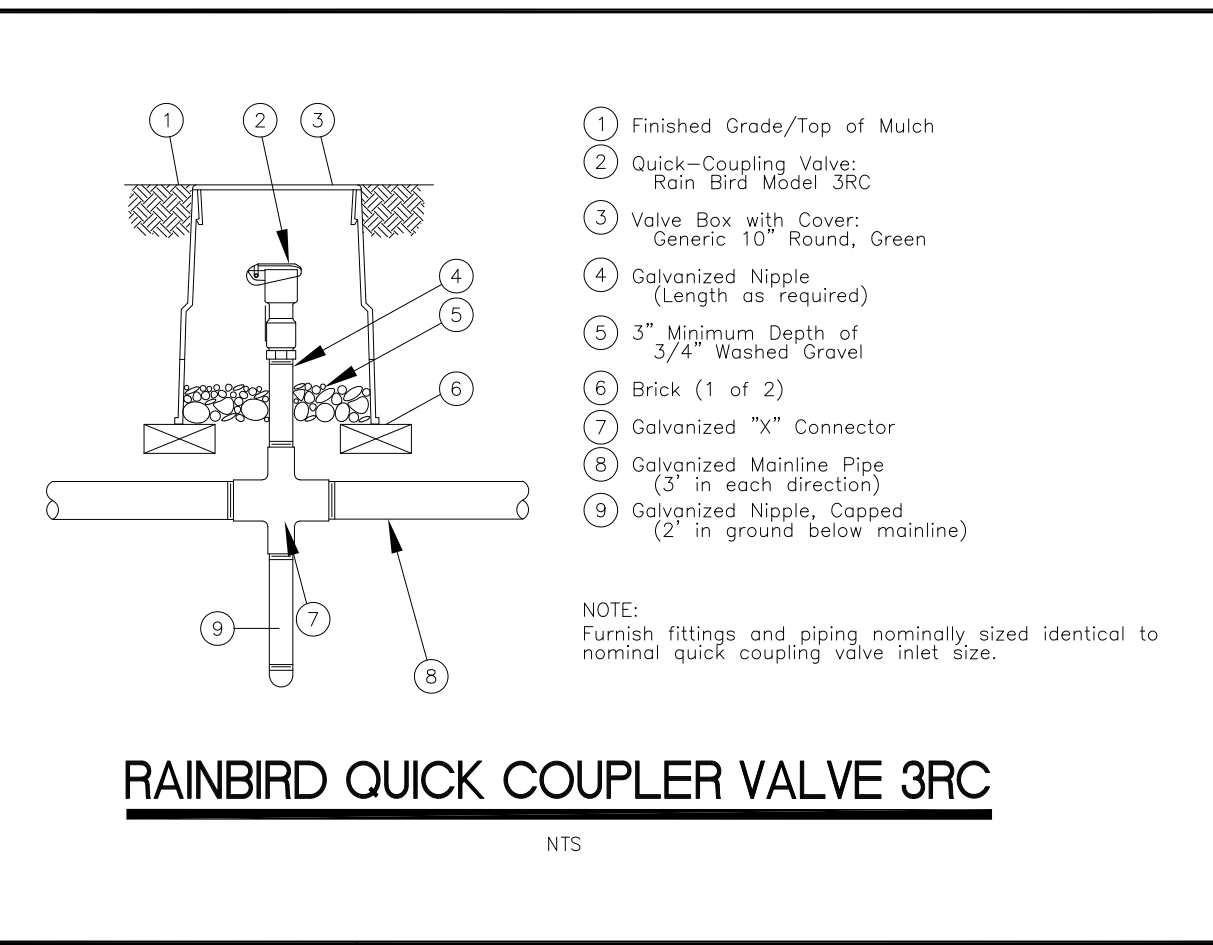
HUNTER I-40 GEAR ROTOR



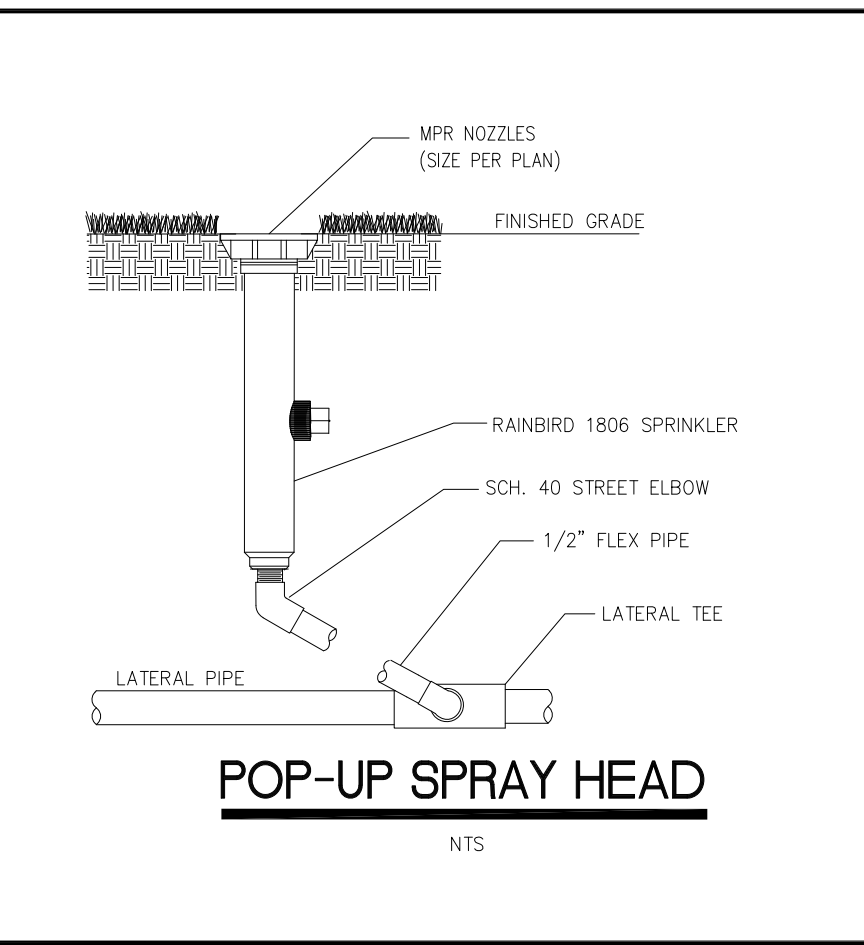
HUNTER I-20 GEAR ROTOR



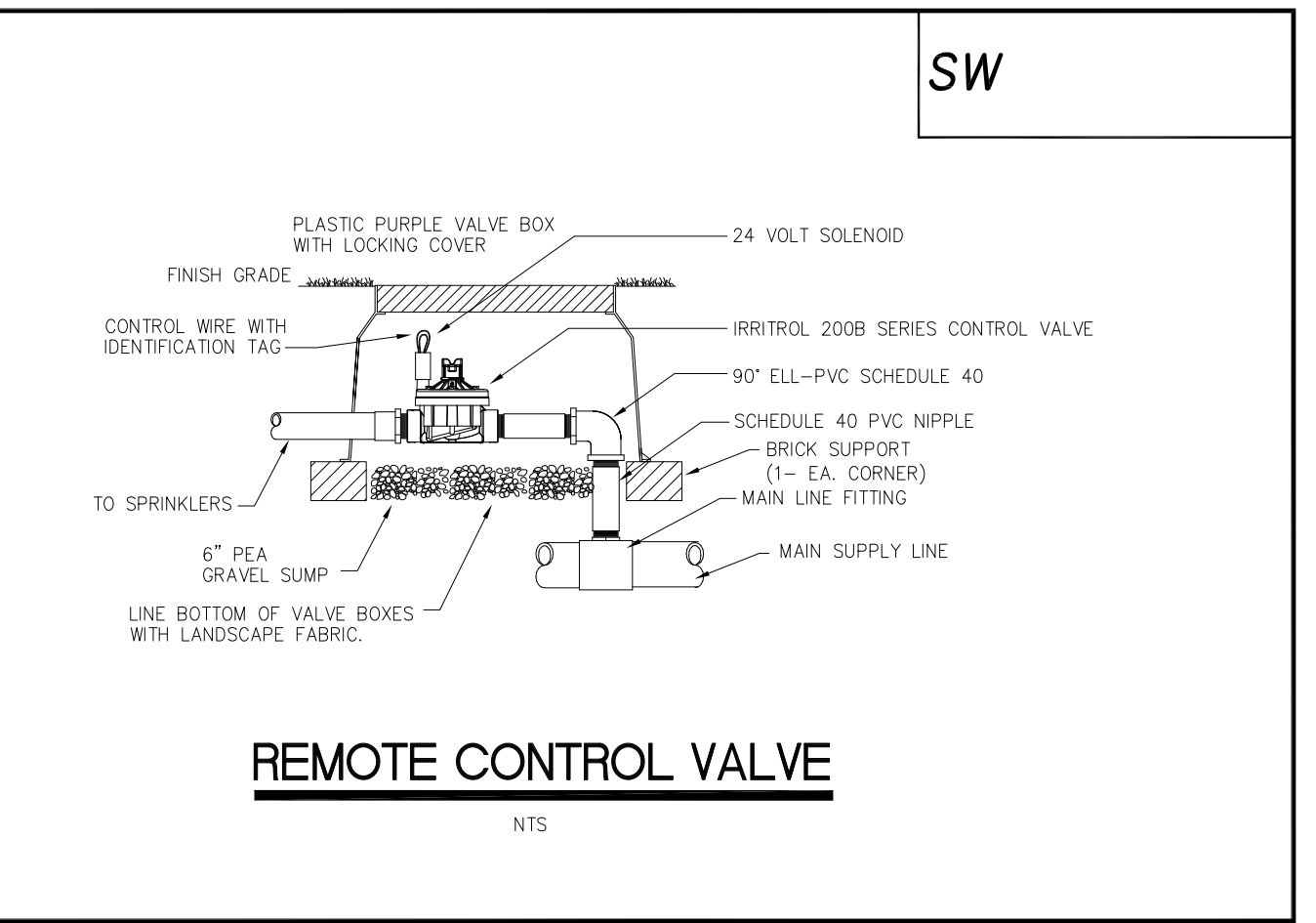
RAINBIRD 1400 SERIES BUBBLER



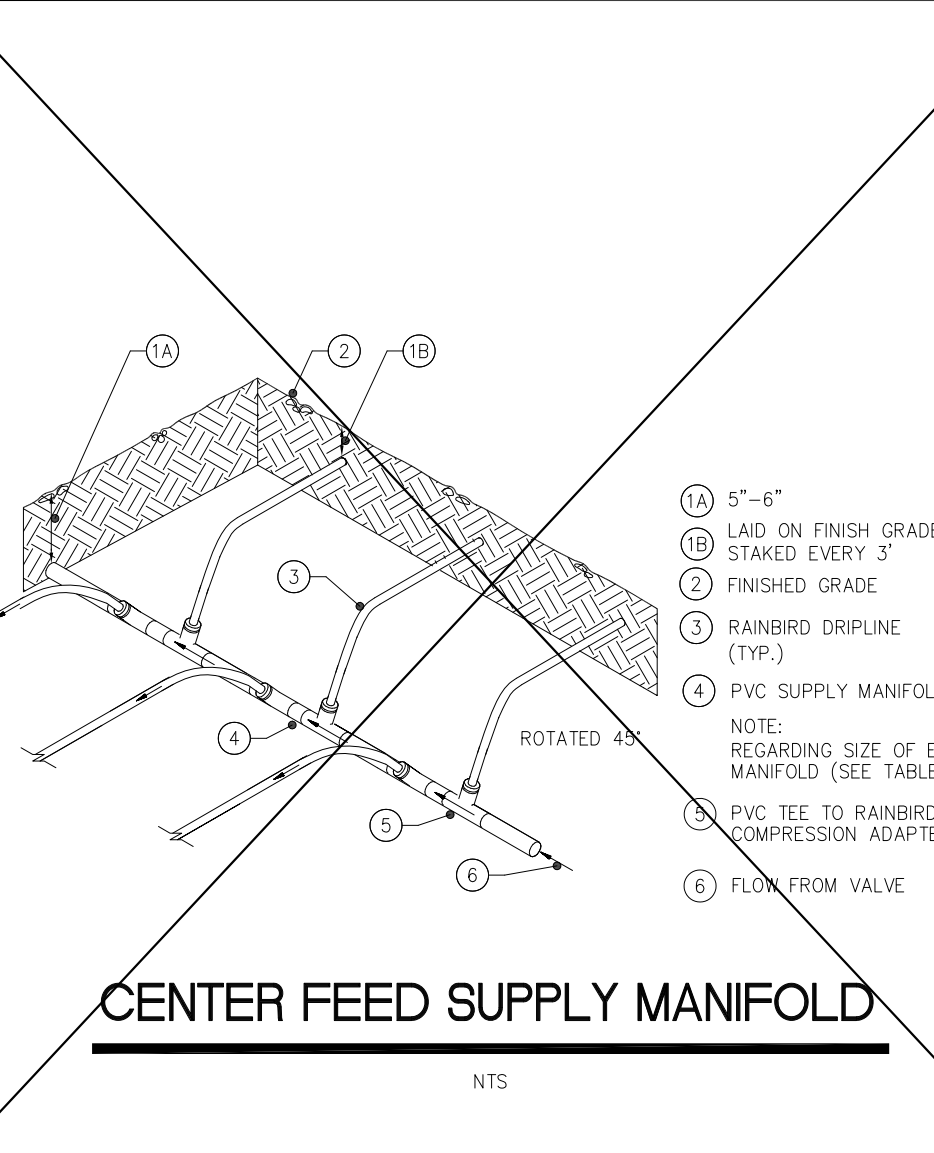
RAINBIRD QUICK COUPLER VALVE 3RC



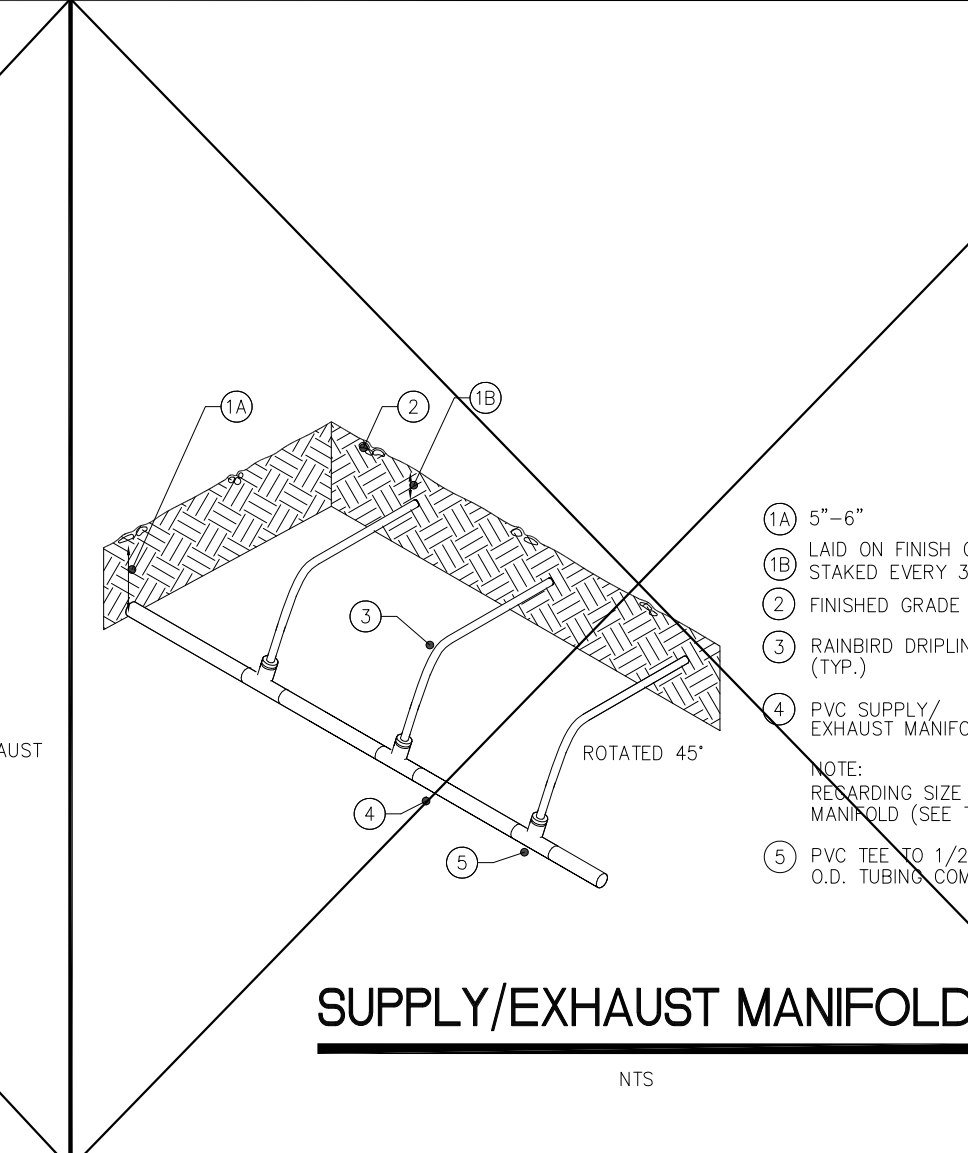
POP-UP SPRAY HEAD



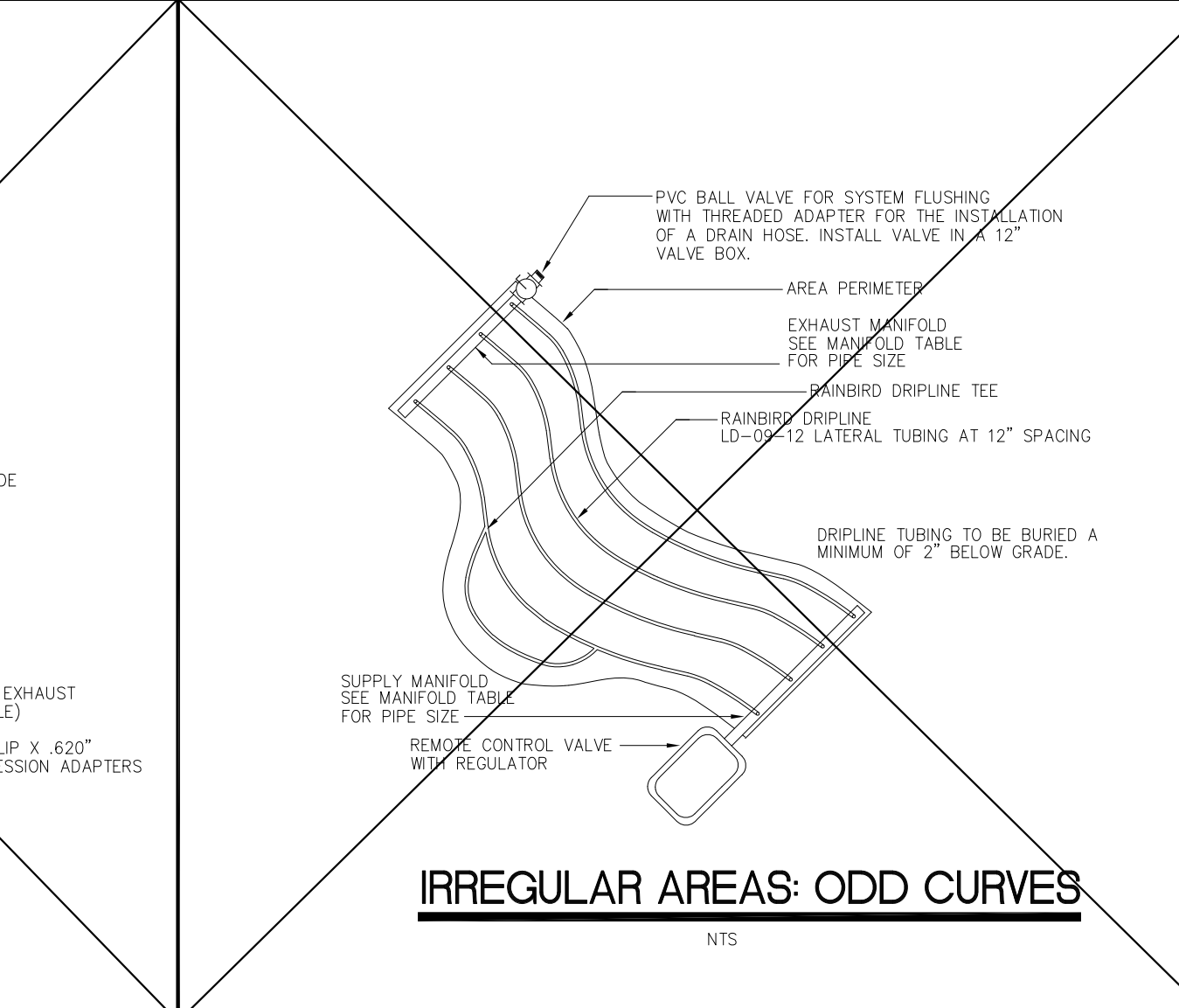
REMOTE CONTROL VALVE



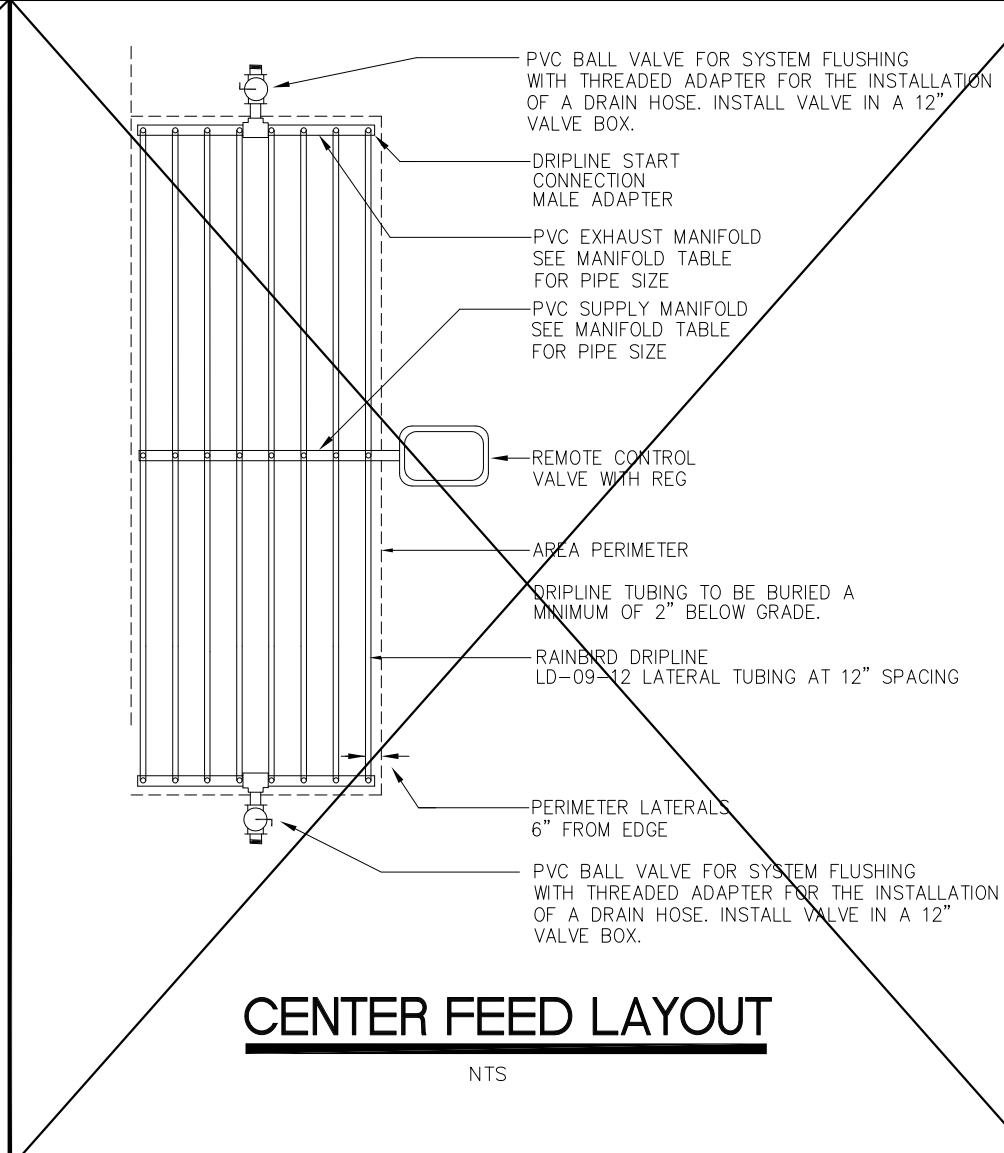
CENTER FEED SUPPLY MANIFOLD



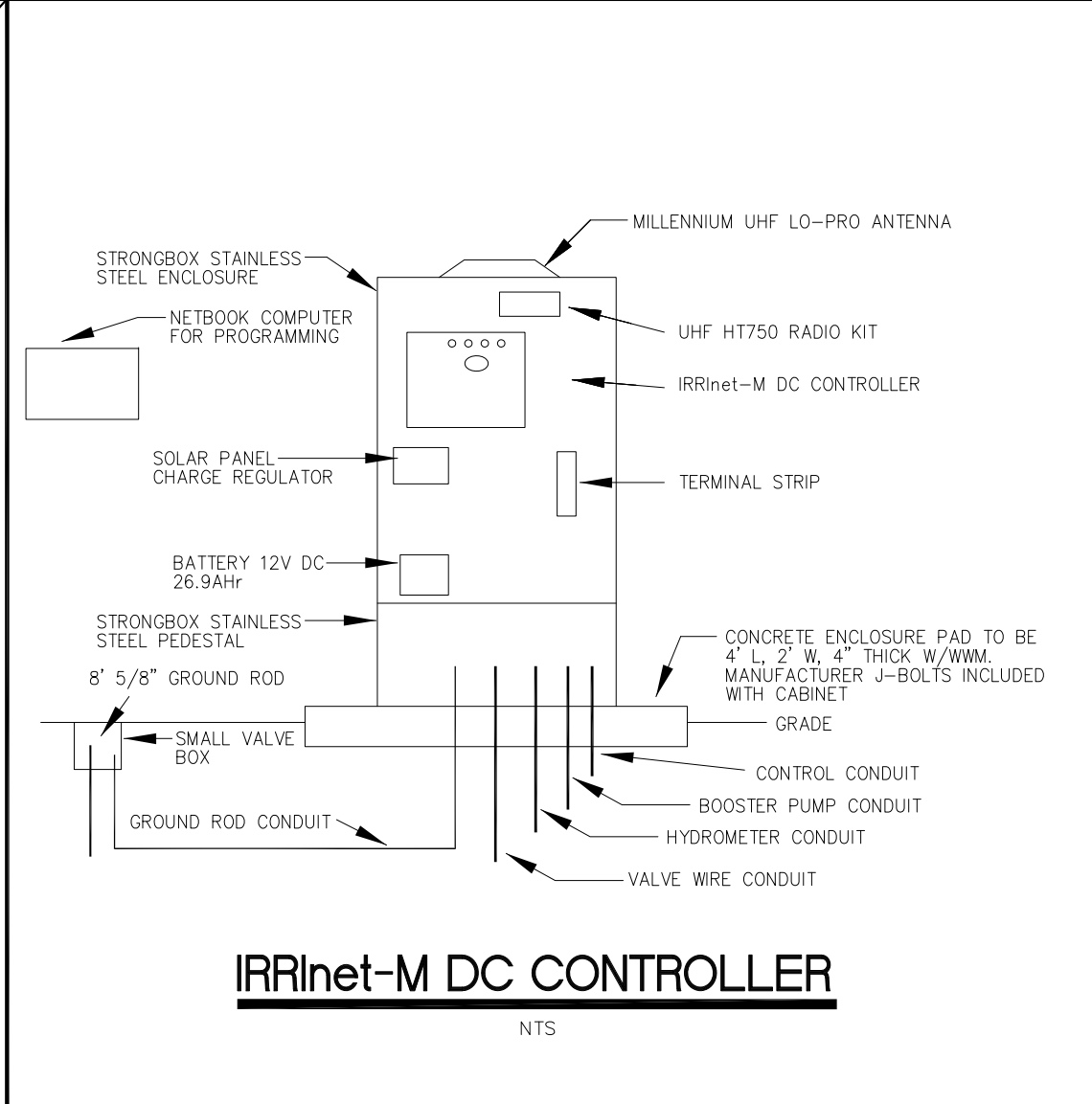
SUPPLY/EXHAUST MANIFOLD



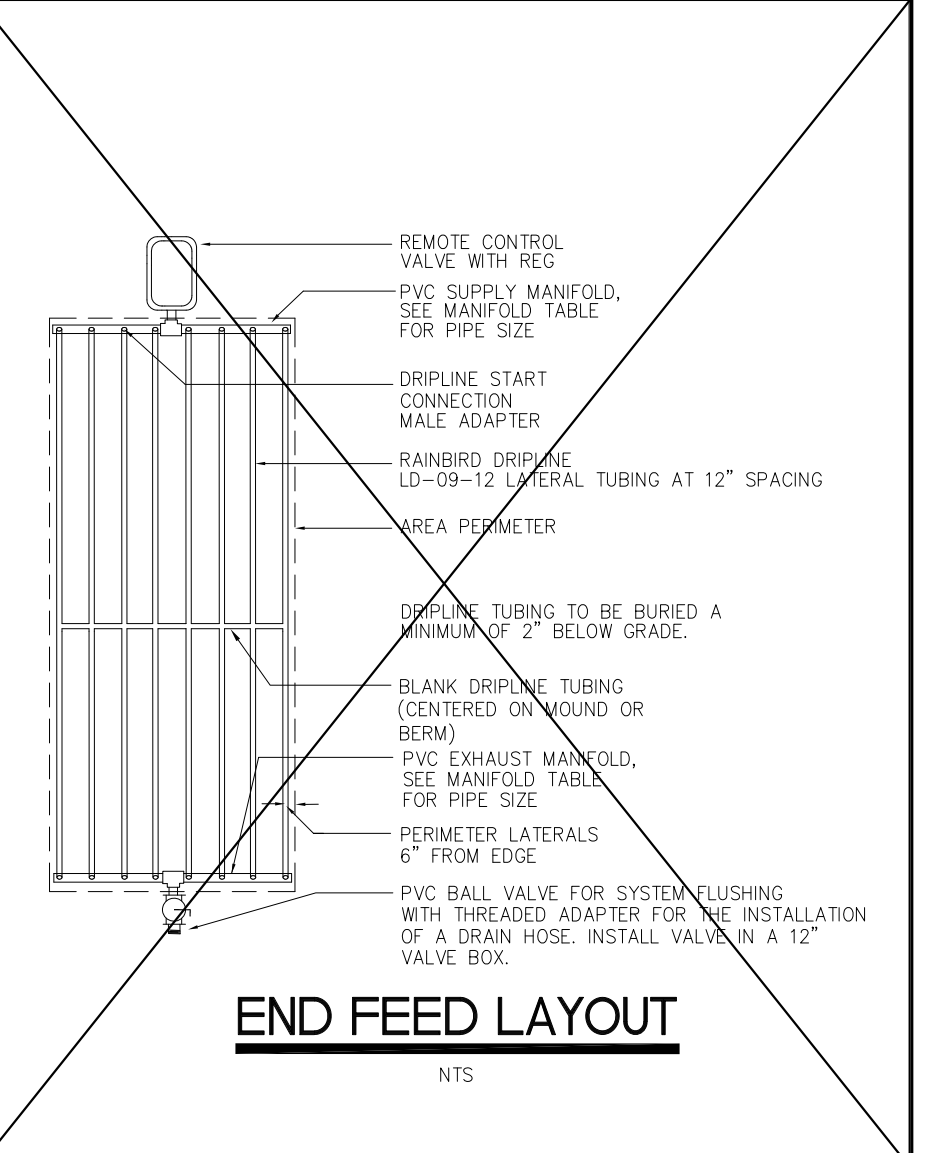
IRREGULAR AREAS: ODD CURVES



CENTER FEED LAYOUT



IRRINET-M DC CONTROLLER

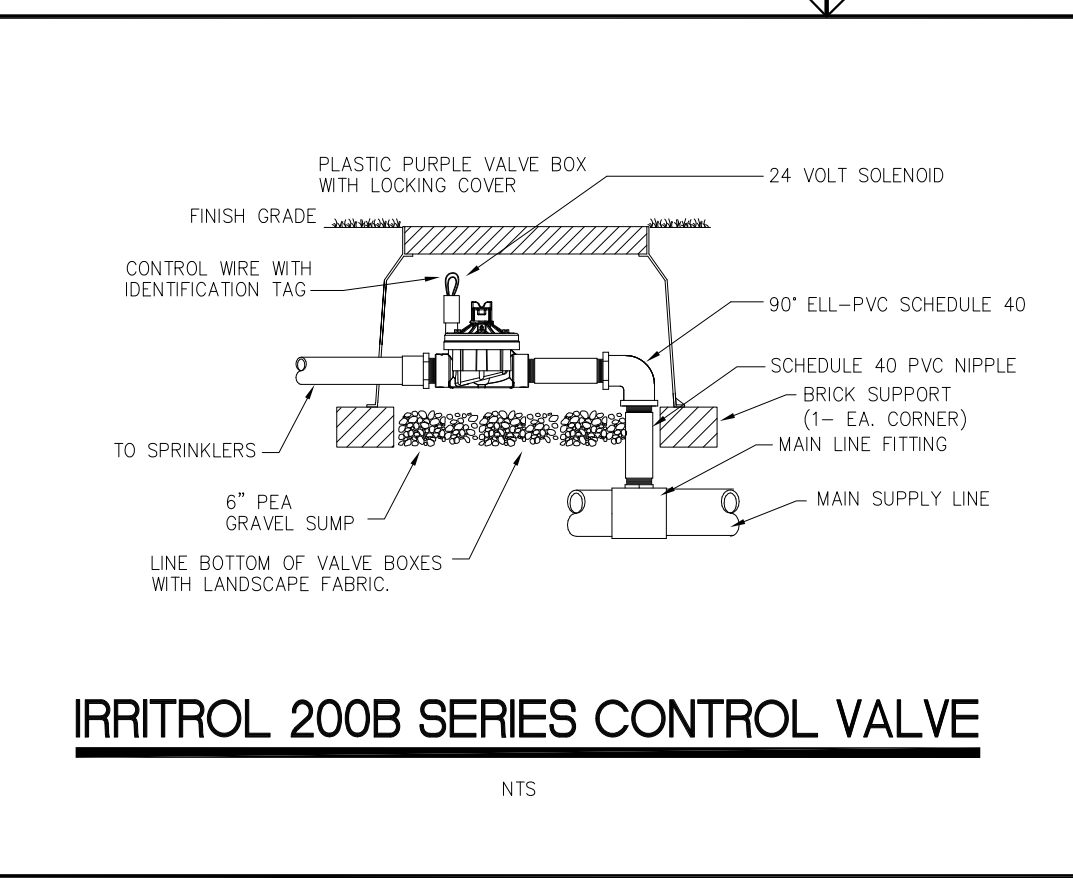


END FEED LAYOUT

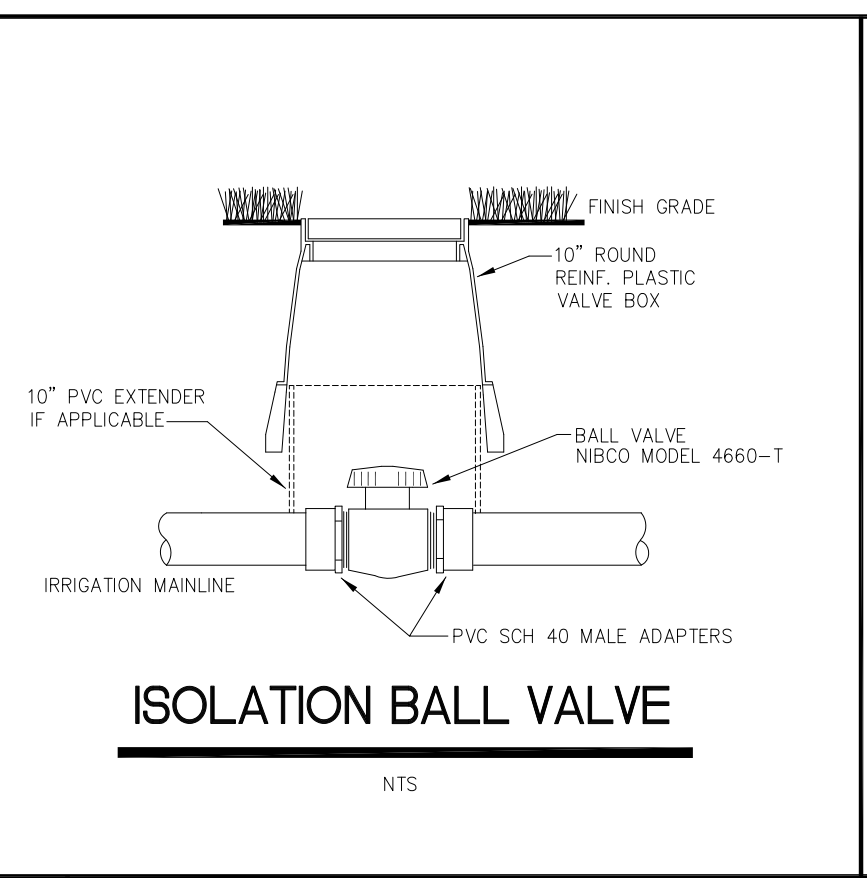
IRRIGATION ZONE DEMAND GALLONS PER MINUTE (GPM)	SUPPLY MANIFOLD PIPE SIZE END AND CENTER FEED	EXHAUST MANIFOLD PIPE SIZE W/END FEED SUPPLY LINE	EXHAUST MANIFOLD PIPE SIZE W/END FEED SUPPLY LINE (TWO EXHAUST MANIFOLDS REQUIRED)
0 - 6	3/4"	3/4"	3/4"
7 - 11	1"	1"	3/4"
12 - 19	1 1/4"	1 1/4"	1"
20 - 26	1 1/2"	1 1/2"	1 1/4"
27 - 42	2"	2"	1 1/4"
43 - 60	2 1/2"	2 1/2"	2"
61 - 90	3"	3"	2"

REFER TO EACH DRIPLINE IRRIGATION ZONE ON PLAN DRAWINGS FOR ZONE DEM.

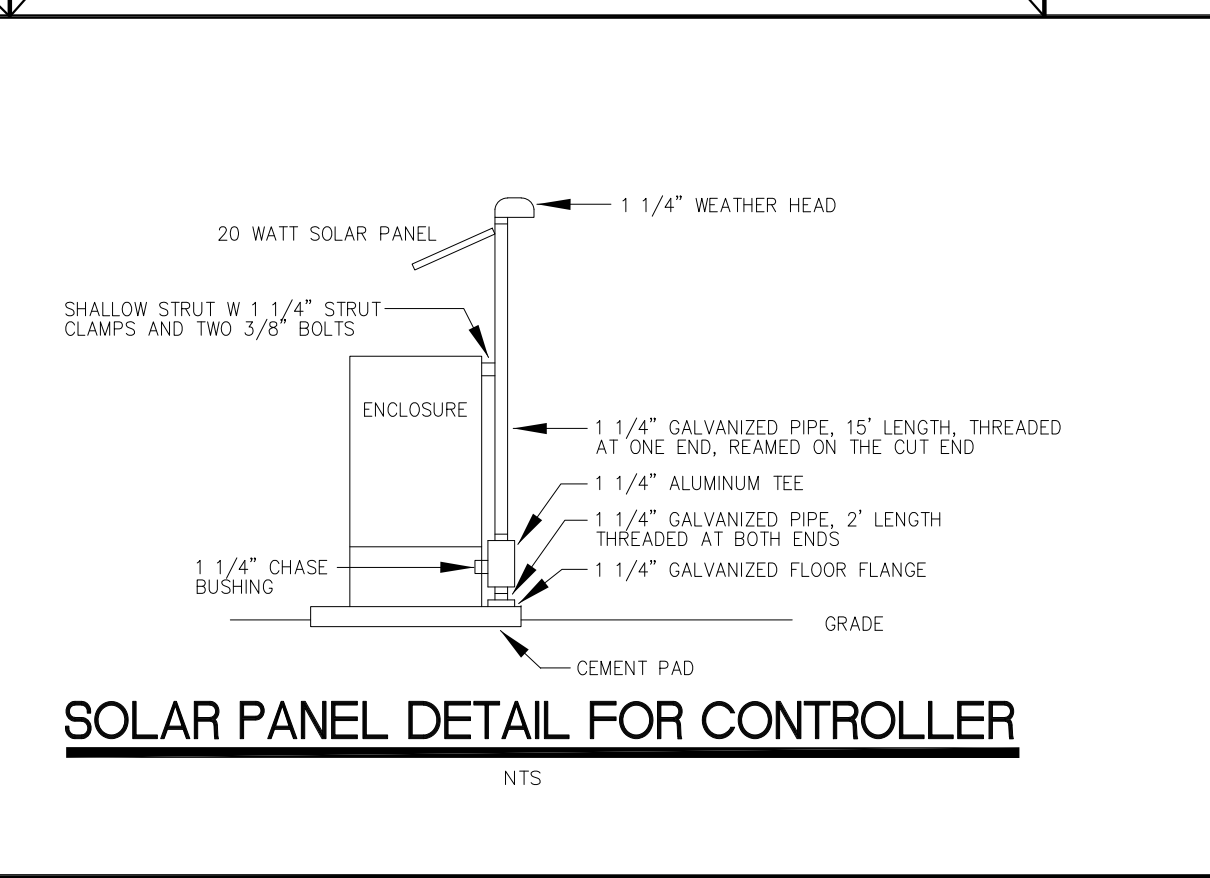
DRIPLINE SUPPLY AND EXHAUST MANIFOLD PIPE SIZE TABLE



IRRITROL 200B SERIES CONTROL VALVE



ISOLATION BALL VALVE



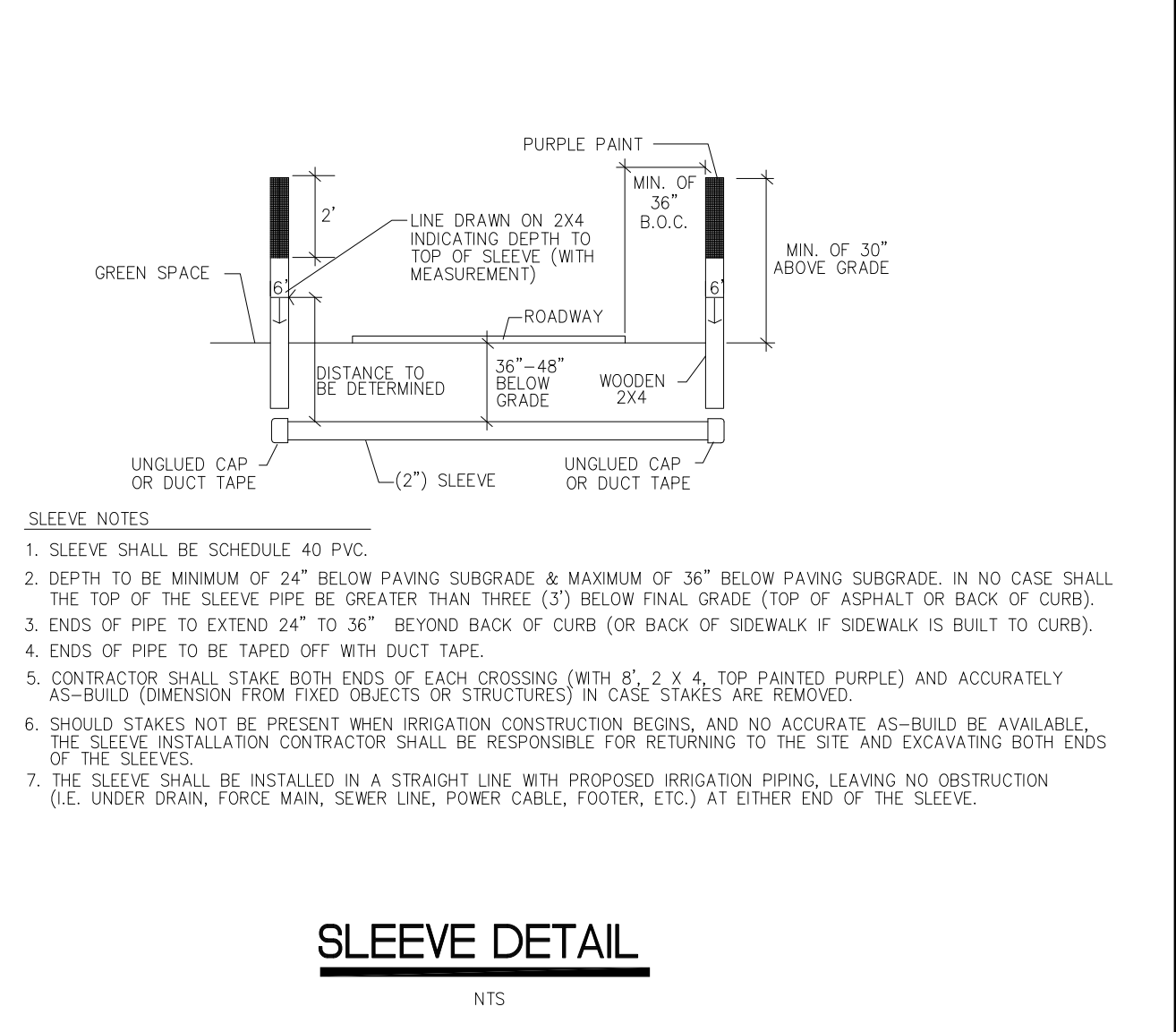
SOLAR PANEL DETAIL FOR CONTROLLER

**IRRINET-M DC CONTROLLER NOTES**

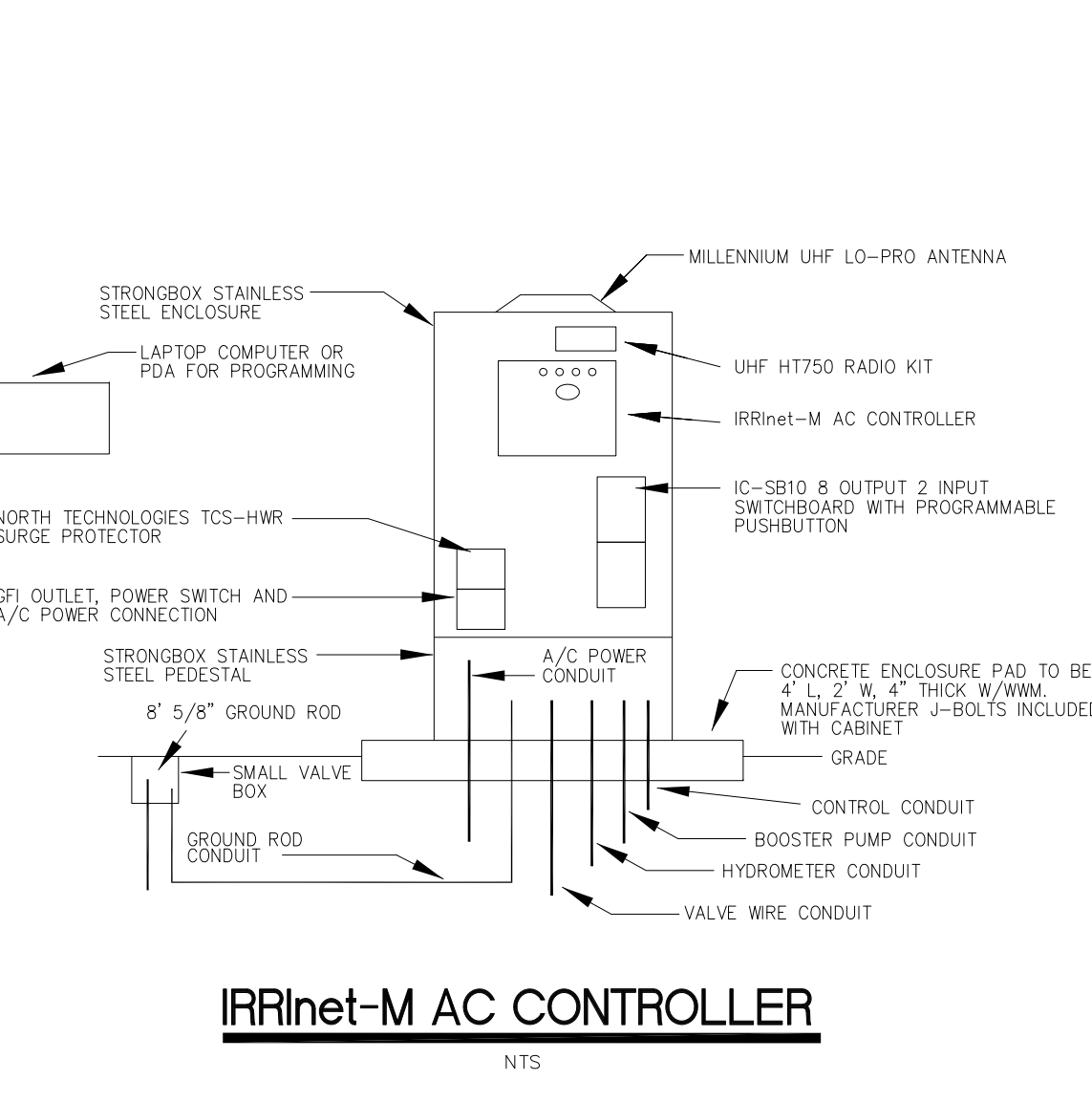
- CONTROLLER SHALL BE (AS NOTED IN DETAIL E ON THIS SHEET) A 12 STATION MOTOROLA DC IRRINET CONTROLLER ASSEMBLY WITH UHF HT750 EXTERNAL RADIO KIT (MODEL # IMDC-12-RX-S18P-AHT-SA-X). UNIT SHALL BE MOUNTED IN A STRONGBOX SB-18SS STAINLESS STEEL ENCLOSURE WITH PEDESTAL. ASSEMBLY SHALL INCLUDE UHF DOME ANTENNA KIT AND 12 STATION TERMINAL SET, SOLAREX MULTIMOUNT MODULE AND HARDWARE, CHARGE REGULATOR, STORAGE BATTERY, AND MAST AND WEATHERHEAD/HARDWARE FOR SOLAR PANEL INSTALLATION. INSTALLATION SHALL INCLUDE ASSEMBLY, HOT TEST (IN SHOP), RADIO PROGRAMMING AND OPTIMIZATION.
- DC UNITS REQUIRE A VALVE COMMON FOR EVERY 6 VALVES.
- CONTACT CENTRAL CONTROL SYSTEMS, LTD - MARJE GIBBEL P.O. BOX 8683 WOODLAND, CA 95776-8683 PH 530-662-6841 FAX 530-662-3776 E-MAIL: CCS@CENTRALCONTROLSYSTEMS.COM FOR PURCHASE INFORMATION.
- CONTROLLER TO BE LOCATED NEAR EXISTING WATER METER. CONFIRM WITH PARKS AND RECREATION IRRIGATION SUPERVISOR PRIOR TO INSTALLATION.
- ALL WIRES NOT UNDER MAINLINE TO BE IN CONDUIT AND LOOSE.
- WIRES BURIED UNDER MAINLINE ARE TO BE BUNDLED AND TAPED AT 20 FOOT INTERVALS.
- DC CONTROLLER SHALL HAVE 6 WIRES AND 1 COMMON FOR EVERY 6 ZONES AND GROUNDED WITH GROUND RODS TO 10 MEGS.

**IRRINET-M AC CONTROLLER NOTES**

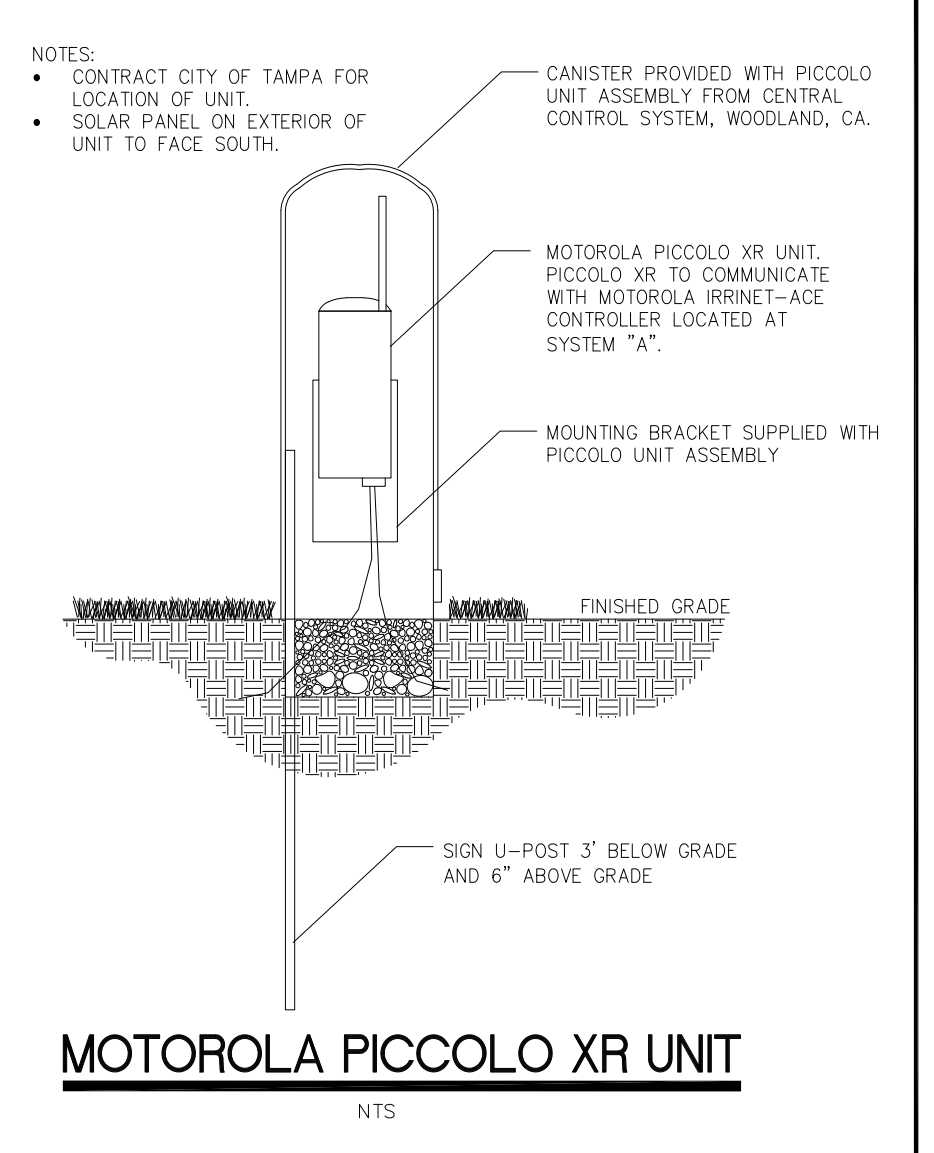
- CONTROLLER SHALL BE (AS NOTED IN DETAIL E ON THIS SHEET) A 12 STATION MOTOROLA AC IRRINET CONTROLLER ASSEMBLY WITH UHF HT750 EXTERNAL RADIO KIT (MODEL # IMDC-12-RX-S18P-AHT-SA-X). UNIT SHALL BE MOUNTED IN A STRONGBOX SB-18SS STAINLESS STEEL ENCLOSURE WITH PEDESTAL. ASSEMBLY SHALL INCLUDE UHF DOME ANTENNA KIT AND 12 STATION TERMINAL SET, SOLAREX MULTIMOUNT MODULE AND HARDWARE, CHARGE REGULATOR, STORAGE BATTERY, AND MAST AND WEATHERHEAD/HARDWARE FOR SOLAR PANEL INSTALLATION. INSTALLATION SHALL INCLUDE ASSEMBLY, HOT TEST (IN SHOP), RADIO PROGRAMMING AND OPTIMIZATION.
- CONTACT CENTRAL CONTROL SYSTEMS, LTD - MARJE GIBBEL P.O. BOX 8683 WOODLAND, CA 95776-8683 PH 530-662-6841 FAX 530-662-3776 E-MAIL: CCS@CENTRALCONTROLSYSTEMS.COM FOR PURCHASE INFORMATION.
- CONTROLLER TO BE LOCATED AS INDICATED ON PLANS. CONFIRM WITH PARKS AND RECREATION IRRIGATION SUPERVISOR PRIOR TO INSTALLATION.
- ALL WIRES NOT UNDER MAINLINE TO BE IN CONDUIT AND LOOSE.
- WIRES BURIED UNDER MAINLINE ARE TO BE BUNDLED AND TAPED AT 20 FOOT INTERVALS.



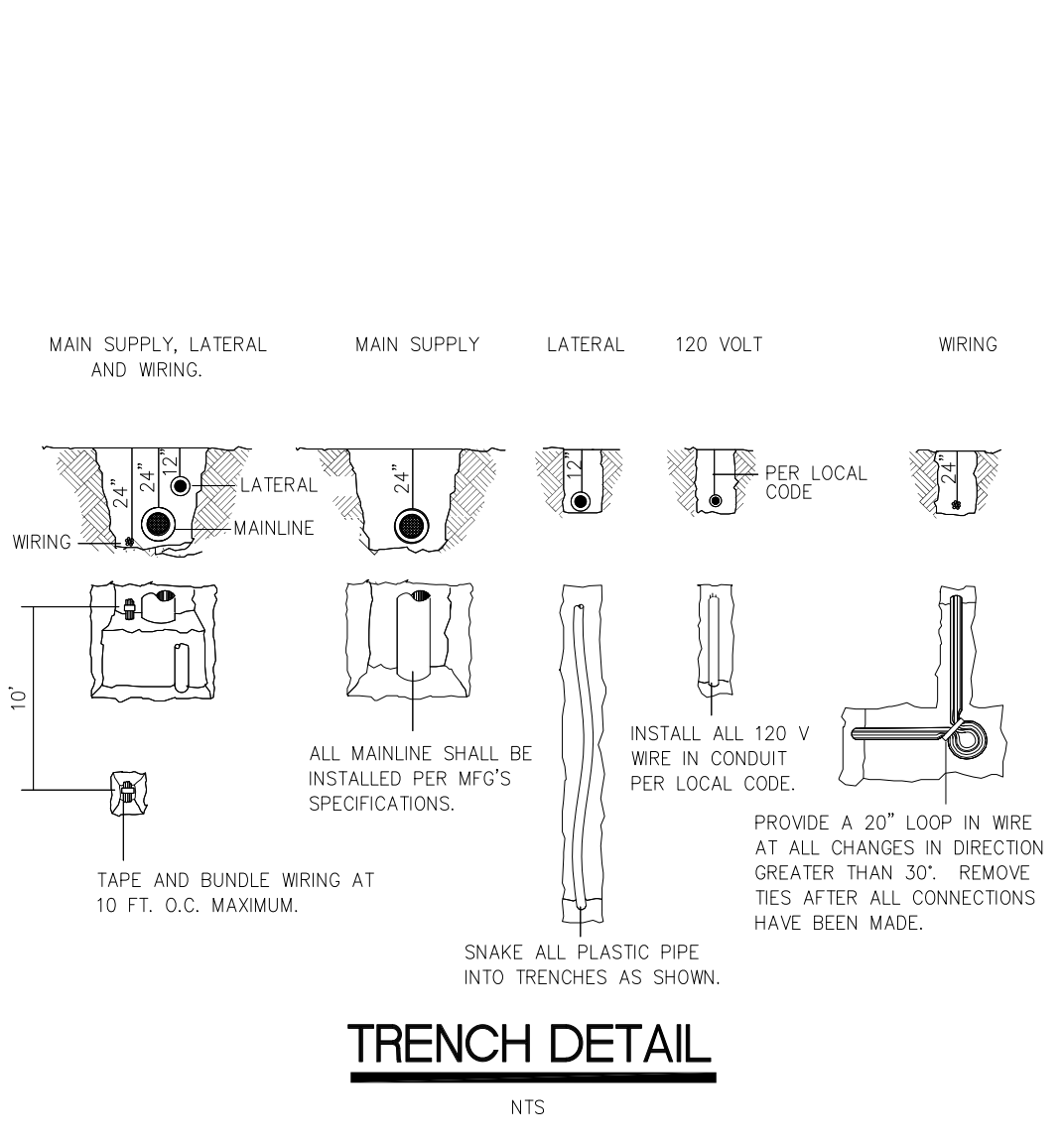
SLEEVE DETAIL



IRRINET-M AC CONTROLLER



MOTOROLA PICCOLO XR UNIT



TRENCH DETAIL

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: HDM  
DRN: TLD  
CKD: HDM  
DATE: 11/7/18

**CITY of TAMPA**  
Department of Transportation and Stormwater Services  
Stormwater Engineering Division

**MPH CIVIL CONSULTANTS, INC.**  
P.O. Box Odessa, Florida 33556  
Phone: 813.731.0052  
duane@mphcivil.com  
Florida CA No.: 30727

IRRIATION DETAILS

H. DUANE MILFORD  
P.E. # 42657

ENGINEER-OF-RECORD

SHEET 22 OF 22

Filename: D:\2017\Forest Hills Park - City of Tampa\Design\09-19\12.dwg; P:\P\18.dwg; Last Saved By: TERRY.DINE; 3/8/2018 10:57:37 PM

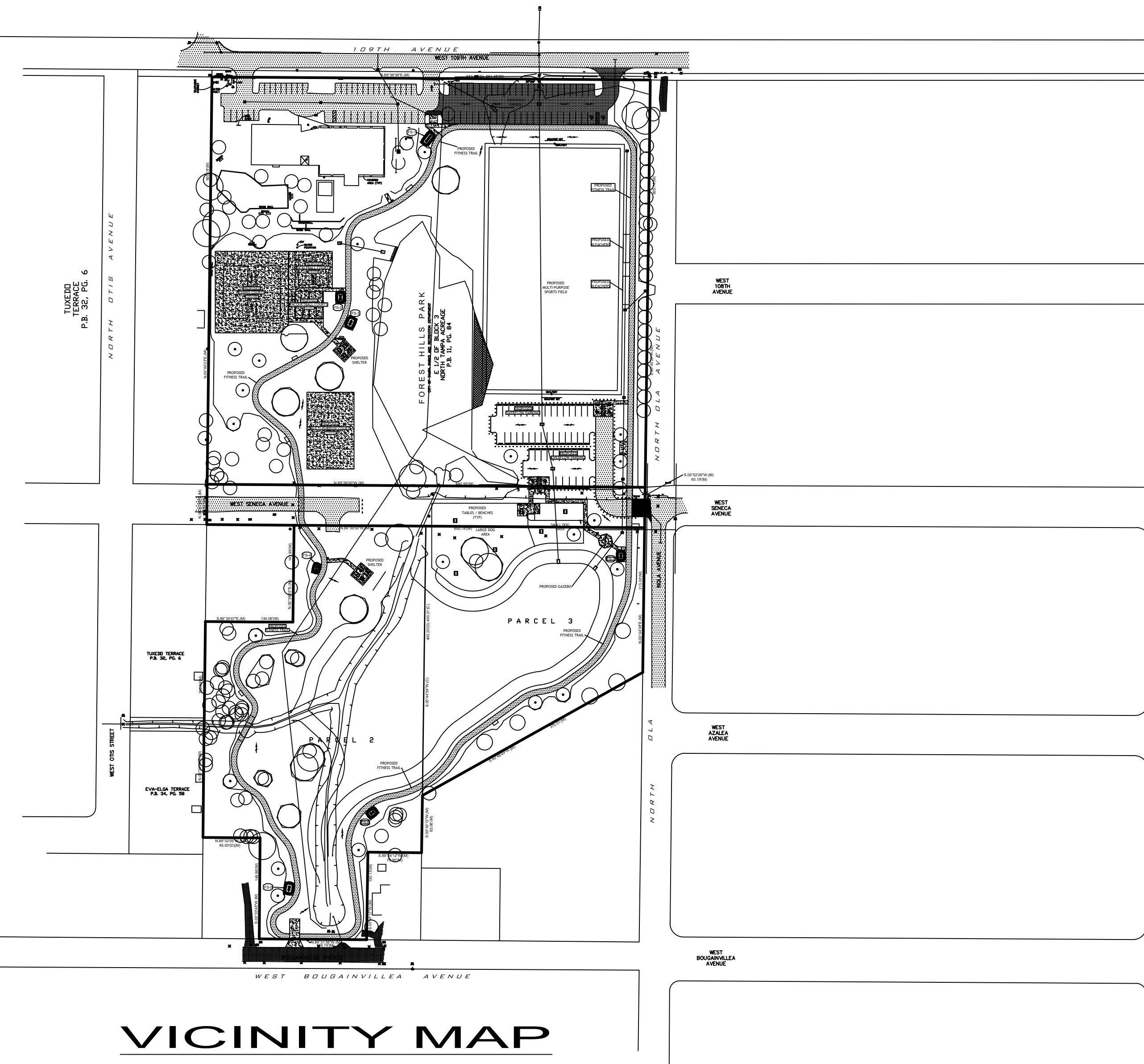
# CITY OF TAMPA

## FOREST HILLS PARK

724 WEST 109TH AVE., TAMPA, FL

## NEW RACQUETBALL COURTS

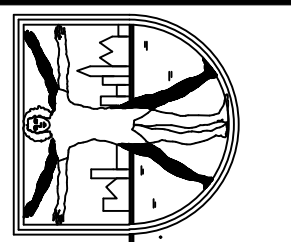
CONTRACT NUMBER: 18-D-61314



### INDEX OF DRAWINGS

SHEET #	TITLE
CS	COVER SHEET
S1	STRUCTURAL NOTES
S2	STRUCTURAL FLOOR PLANS

NON-STRUCTURAL SHEET  
 This sheet contains no structural information and is not covered by the the engineering seal. Specifically, all information on this sheet is for visual reference only.



**The Structures Group, Inc.**  
 Dr. Nick M. Bradford, P.E., S.E., S.I.  
 FL. Reg. #52585 CA 8956  
 1714 N. Armenia Avenue, #B  
 Tampa, FL 33607  
 Phone (813) 677-3421  
 email: structuresgroup@verizon.net  
 www.Structures-Group.com

To the best of the engineer's knowledge, plans and specifications comply with the minimum requirements of The Florida Building Code, Section 1609(8th Ed. - 2017)

Plans and specifications have been designed to withstand the design wind speed designated on Sheet S-1 (Structural Notes) unless noted otherwise on this sheet.

These drawings are valid for 12 months after date they signed and sealed or until the requirements of the Building Code are changed.

All signed and sealed drawings are signed and sealed for the structural portions of the drawings only. All other information (Architectural, Electrical, Mechanical, Plumbing, Dimensional, etc.) are for visual reference only and are not covered under this seal.

It is the Contractor's responsibility to review all drawings before construction begins. The Engineer of Record is responsible for the structural integrity of this project only. Any discrepancy between field conditions, other design professionals' shop drawings, Contractor's building methods, and these construction documents must be brought to the attention of the Engineer of Record prior to the commencement of construction. When such discrepancies exist, Engineer of Record is not responsible for any related components once installed.

Contractor must verify all dimensions prior to start of any construction. Contractor must submit all shop drawing documents as specified in these drawings prior to the start of any construction and is solely responsible for related components if installed without appropriate shop drawing review and approval.

**ADDITIONS/RENOVATIONS**  
 The Engineer of Record is responsible for the proposed changes to the original structure shown on these pages only. The Engineer of Record is not responsible for existing structural systems or components.

**ELECTRONIC SIGNATURES**  
 An electronic signature by the Engineer of Record does not certify any non-structural information. Non-structural sheets (Mechanical, Electrical, Plumbing, Site, Building Sections, Elevations, Waterproofing, Architectural, Florida Product Approval, Dimensional, etc.) are not covered by Engineer of Record seal. Sheets that provide both structural and non-structural information are certified solely for the structural information presented on them. Non-structural sheets are denoted as such and are not covered in any way by this seal.

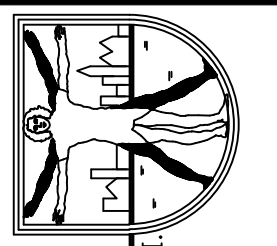
**NON-STRUCTURAL SHEET**  
**FOREST HILLS PARK**  
**724 WEST 109TH AVE**  
**RACQUETBALL COURTS**  
**CONTRACT NO: 18-D-61314**  
 FLORIDA

JOB NUMBER :	20180193
DATE :	AUGUST 28, 2018
DRAWN BY :	
SCALE :	

SHEET NUMBER  
**CS**

SIGN & SEAL





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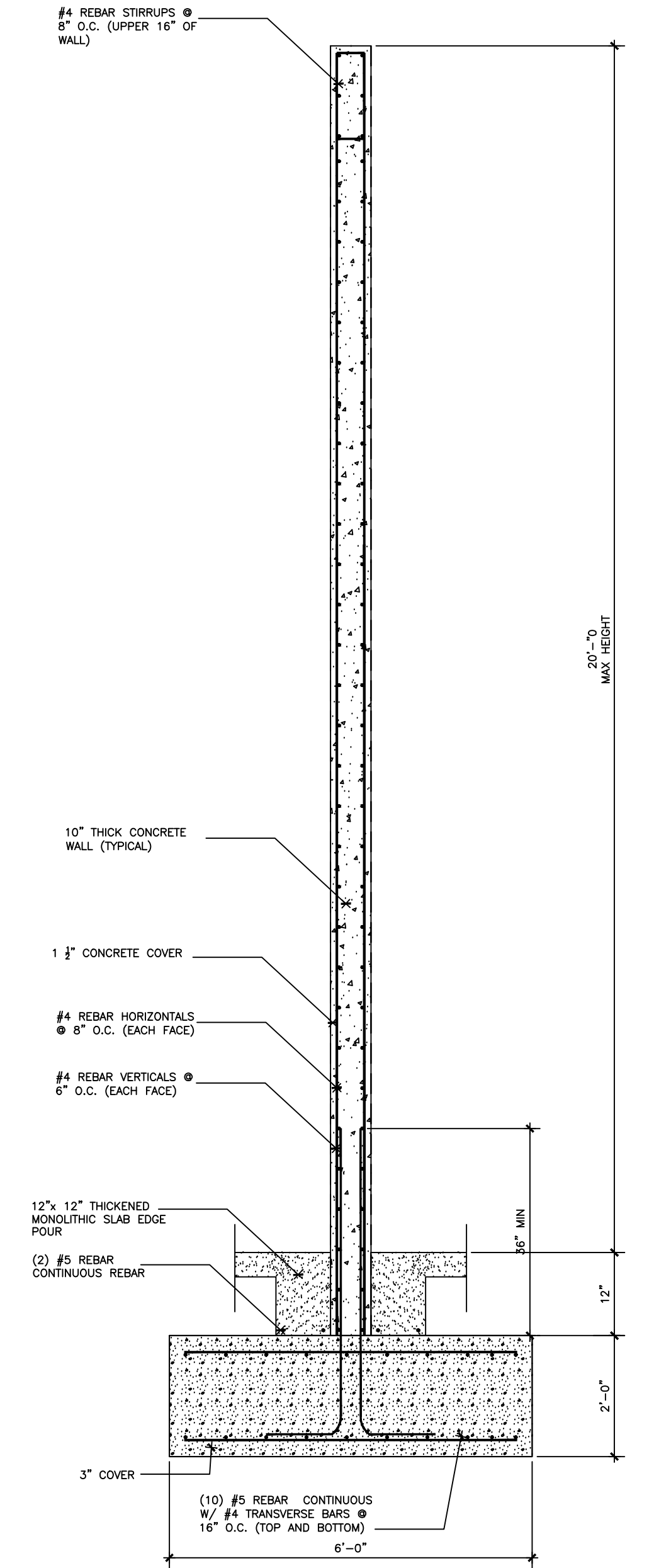
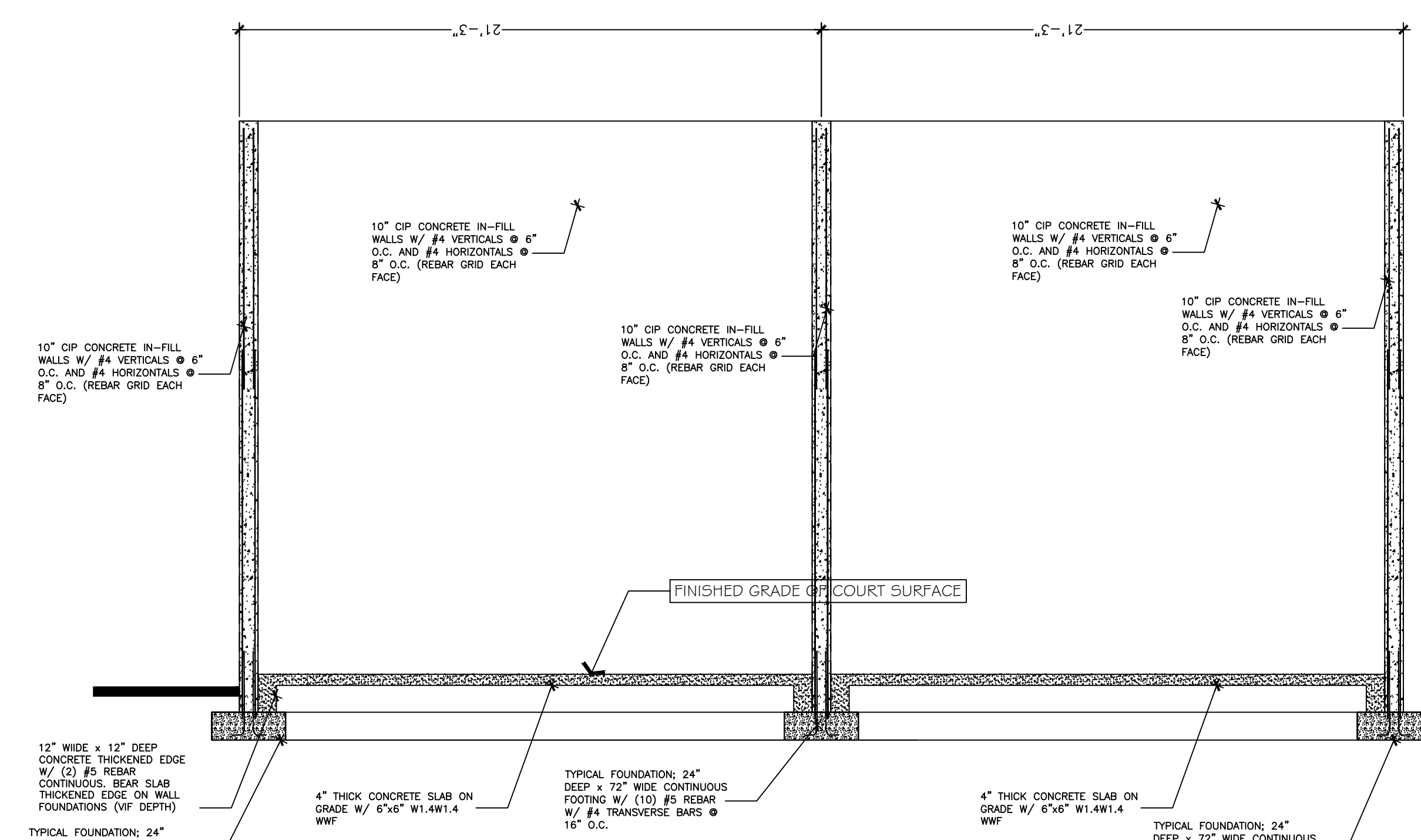
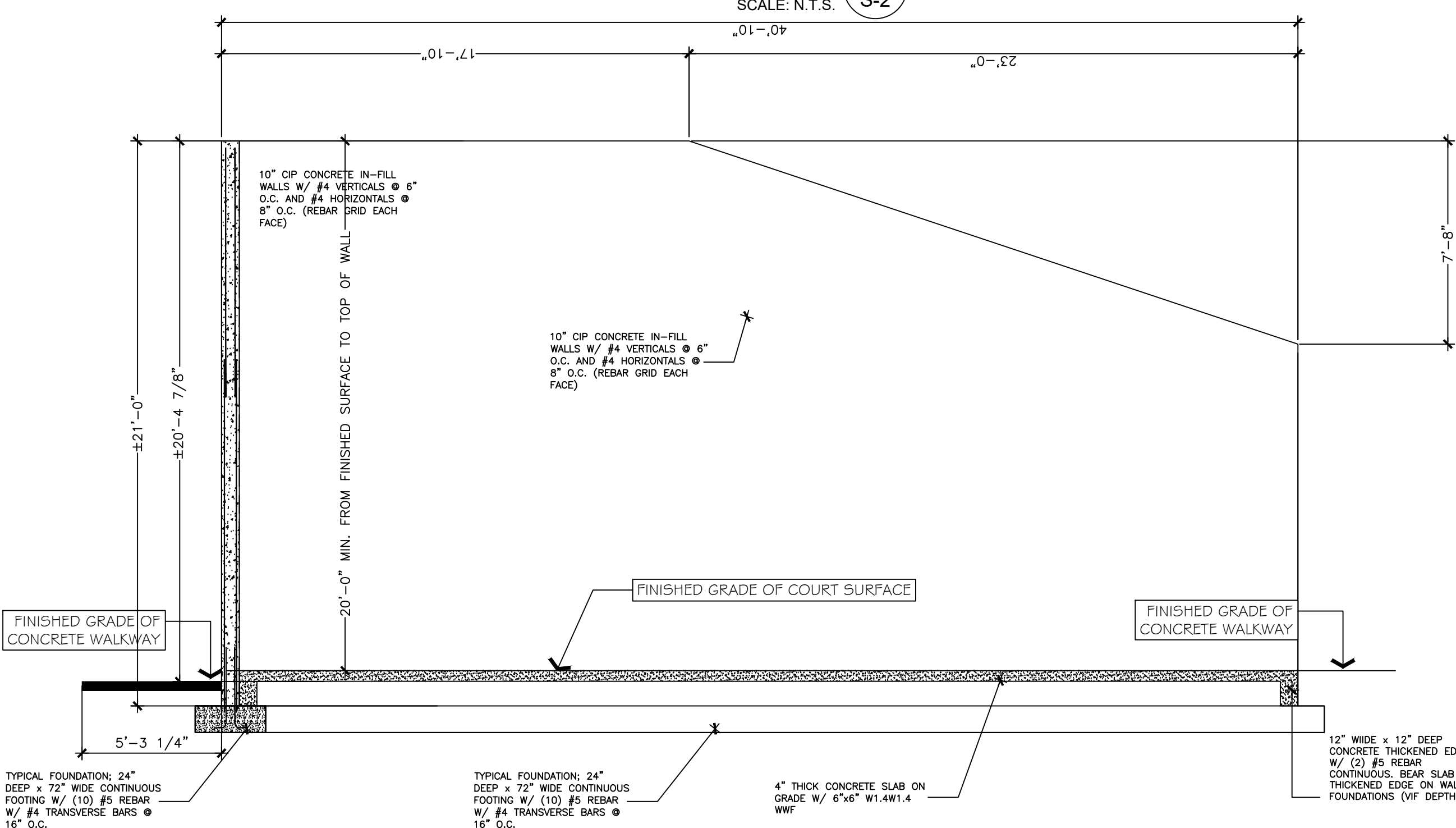
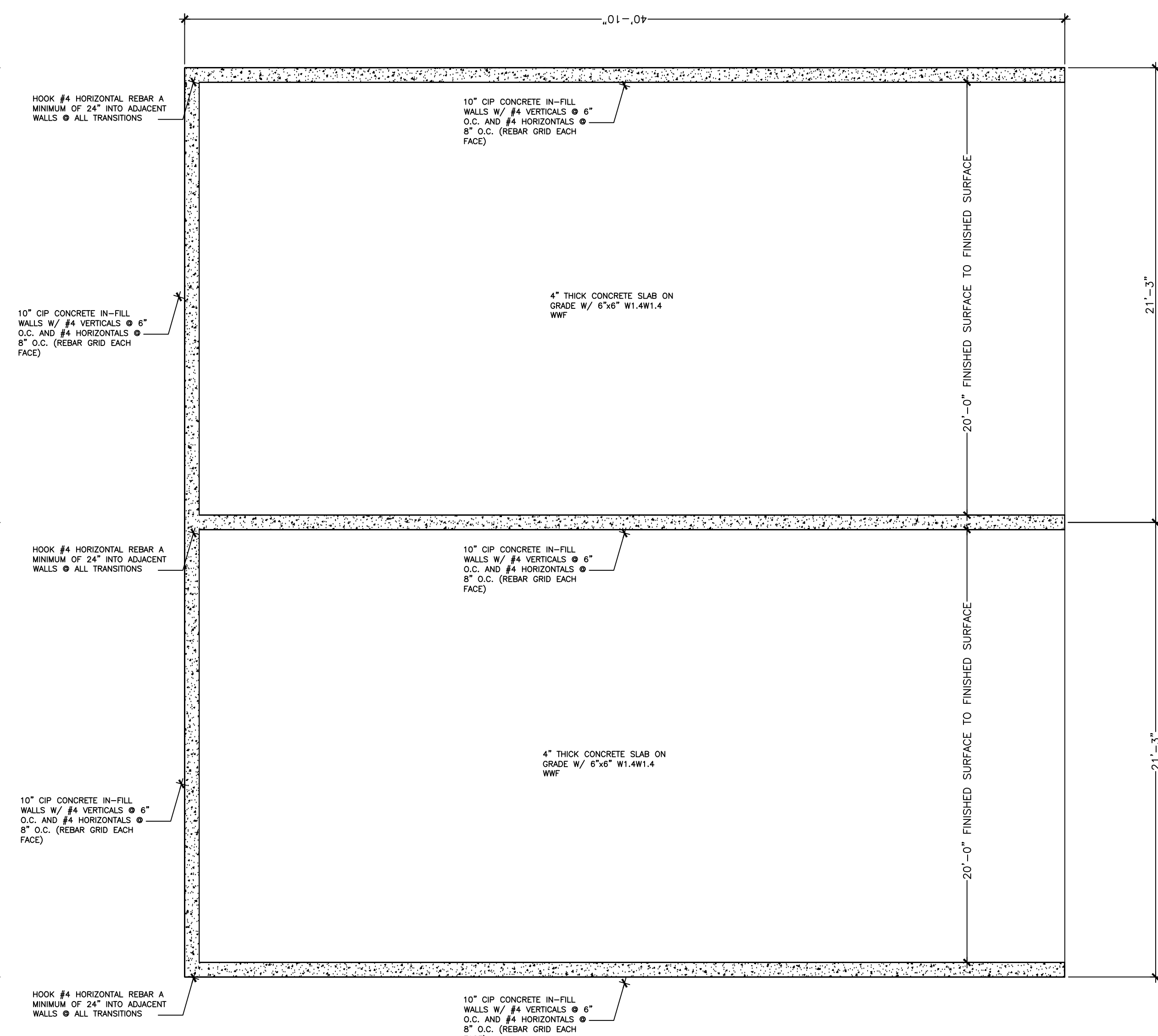
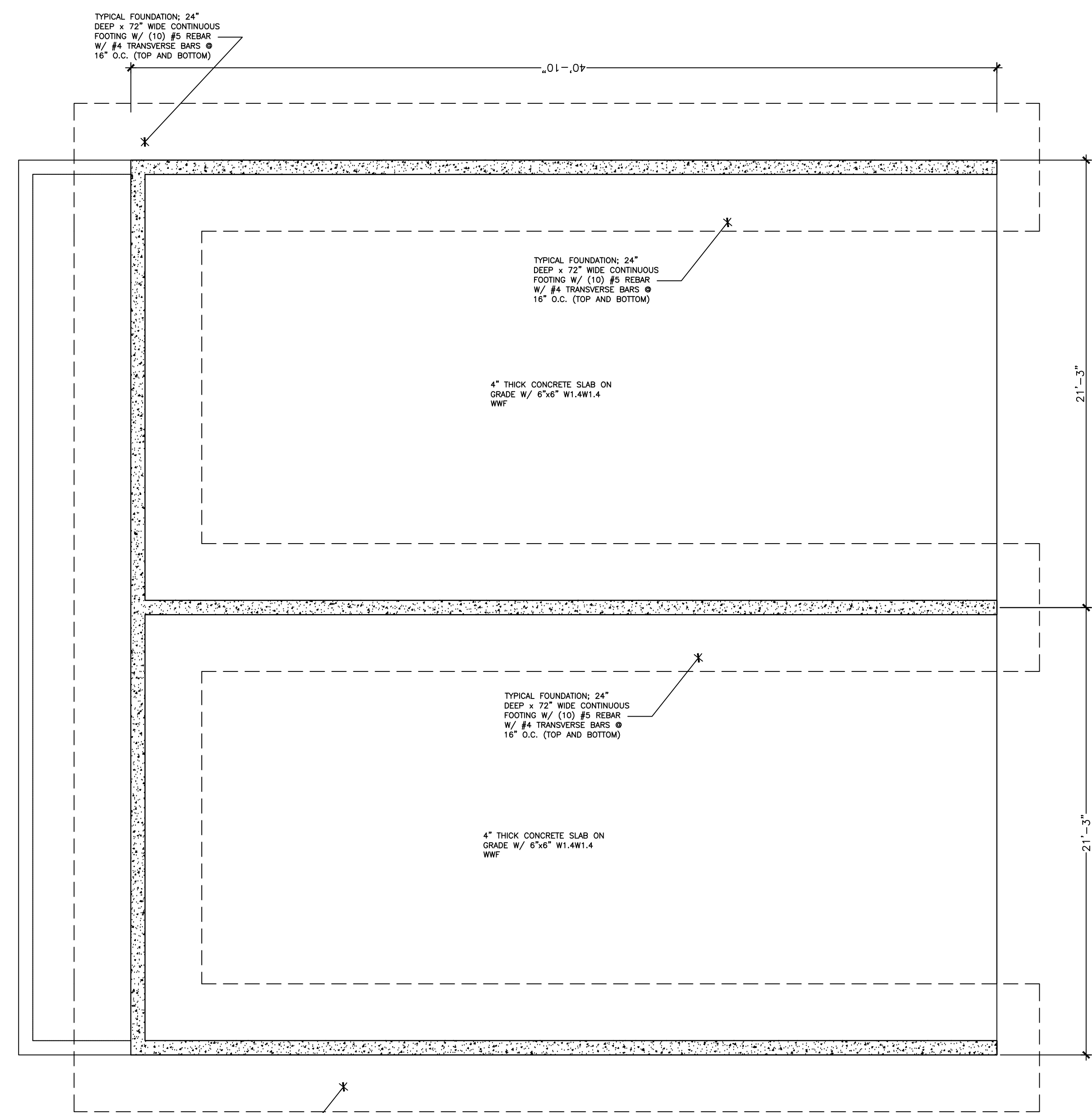
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**FOREST HILLS PARK**  
**724 WEST 109TH AVE**  
**RACQUETBALL COURTS**  
**CONTRACT NO: 18-D-61314**  
 FLORIDA

JOB NUMBER: 20180193  
 DATE: AUGUST 28, 2018  
 DRAWN BY:  
 SCALE:

SHEET NUMBER  
**S2**  
 LICENSE  
 No 52585  
 October 29, 2018  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER



TYPICAL FOUNDATION: 24" DEEP x 72" WIDE CONTINUOUS FOOTING W/ (10) #5 REBAR W/ #4 TRANSVERSE BARS @ 16" O.C. (TOP AND BOTTOM)

4" THICK CONCRETE SLAB ON GRADE W/ 6"x6" W1.4W1.4 WWF

12" WIDE x 12" DEEP CONCRETE THICKENED EDGE W/ (2) #5 REBAR CONTINUOUS BEAR SLAB THICKENED EDGE ON WALL FOUNDATIONS (WF DEPTH)

TYPICAL FOUNDATION: 24" DEEP x 72" WIDE CONTINUOUS FOOTING W/ (10) #5 REBAR W/ #4 TRANSVERSE BARS @ 16" O.C.

10" CIP CONCRETE IN-FILL WALLS W/ #4 VERTICALS @ 6" O.C. AND #4 HORIZONTALS @ 8" O.C. (REBAR GRID EACH FACE)

4" THICK CONCRETE SLAB ON GRADE W/ 6"x6" W1.4W1.4 WWF

TYPICAL FOUNDATION: 24" DEEP x 72" WIDE CONTINUOUS FOOTING W/ (10) #5 REBAR W/ #4 TRANSVERSE BARS @ 16" O.C.

10" THICK CONCRETE WALL (TYPICAL)

1 1/2" CONCRETE COVER

#4 REBAR HORIZONTALS @ 8" O.C. (EACH FACE)

#4 REBAR VERTICALS @ 6" O.C. (EACH FACE)

12" x 12" THICKENED MONOLITHIC SLAB EDGE POUR

(2) #5 REBAR CONTINUOUS REBAR

(10) #5 REBAR CONTINUOUS W/ #4 TRANSVERSE BARS @ 16" O.C. (TOP AND BOTTOM)