

MDOT STANDARD ROAD PLANS

- *R-1-G DRAINAGE STRUCTURES
- R-12-E COVER G
- *R-28-J SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
- R-29-I DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALKS
- R-30-G CONCRETE CURB AND CONCRETE CURB & GUTTER
- *R-60-J GUARDRAIL TYPES A, B, BD, T, TD, MGS-8, & MGS-8D
- R-74-D BUMPER & PARKING RAILS AND MISC. WOOD POSTS
- R-80-E GRANULAR BLANKET AND UNDERDRAINS
- R-82-D BEDDING AND FILLING AROUND PIPE CULVERTS
- R-83-C UTILITY TRENCHES
- *R-86-F PRECAST CONCRETE END SECTION FOR PIPE CULVERT
- R-88-D STEEL END SECTION
- R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES
- R-101-B WOVEN WIRE FENCE

MDOT PAVEMENT MARKING STANDARD PLANS

- PAVE-905-D LONGITUDINAL LINE TYPES & PLACEMENT
- PAVE-945-C INTERSECTION, STOP BAR & CROSSWALK MARKINGS

MDOT SIGNING STANDARD PLANS

- SIGN-100-G STANDARD SIGN INSTALLATIONS
- SIGN-120-E ROADSIDE SIDE LOCATIONS & SUPPORT SPACING
- SIGN-150-D SIGN SUPPORT SELECTION CHARTS
- SIGN-200-E STEEL POSTS
- SIGN-210-B WOOD POSTS

MDOT TRAFFIC AND SAFETY STANDARD PLANS

- M0020a TABLES FOR "L", "D", AND "B" VALUES
- M0040a ADVANCE SIGNING FOR SHORT TERM WORK ZONE OF MORE THAN TWO MILES
- M0110a TWO-LANE TWO-WAY SHOULDER CLOSURE
- M0140a TWO-LANE TWO-WAY ONE LANE CLOSURE UTILIZING TRAFFIC REGULATORS
- *WZD-100-A GROUND DRIVEN SIGN SUPPORT FOR TEMP SIGNS
- *WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES

* DENOTES SPECIAL DETAIL
SPECIAL DETAILS ARE INCLUDED IN THE PROPOSAL

THE CONSTRUCTION PLANS REFERENCES THE FOLLOWING MDOT STANDARD PLANS. THE MDOT STANDARD PLANS ARE INCLUDED IN THE CONTRACT DOCUMENTS FOR REFERENCE.

UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED FROM UTILITY OWNER AND AS-BUILT DRAWINGS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO IT'S ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

NAME OF OWNER	CONTACT	TYPE OF UTILITY
AT&T 309 S. SAGINAW STREET SAGINAW, MI 49607	MIKE SZYMKOWIAK (989) 776-4058	TELEPHONE
AUSABLE TOWNSHIP 311 5TH STREET AUSABLE, MI 48750	CAL TAYLOR (989) 820-5754	WATER
CONSUMERS ENERGY 530 W. WILLOW STREET LANSING, MI 48906	KURT GOLDING (999) 999-9999	GAS
CONSUMERS ENERGY 2400 WESS STREET SAGINAW, MI 48602	JAMES LEEDY (989) 516-4113	ELECTRIC
CHARTER COMMUNICATIONS 1392 TRADE CENTRE DRIVE TRAVERSE CITY, MI 49696	PATRICK DELISI (231) 941-3819	CABLE
DTE 4100 DOERR ROAD CASS CITY, MI 48726	MATTHEW LOGAN (989) 872-6188	GAS
DTE ONE ENERGY PLAZA DETROIT, MI 48226	SAMANTHA WILLIAMS (586) 904-1409	ELECTRIC
EVERSTREAM 3950 SPARKS DRIVE SE. GRAND RAPIDS, MI 49546	BRIAN KUNTER (616) 608-8945	FIBER
HURON SHORES REGIONAL UTILITY AUTHORITY 247 BALDWIN RESORT ROAD EAST TAWAS, MI 48730	KIRK TEWS (989) 362-0050	WATER SANITARY SEWER
IOSCO COUNTY BUILDING DEPT. 420 W. LAKE STREET TAWAS CITY, MI 48764	NICOLE VALLETTE (989) 362-6511	SOIL EROSION
MERIT NETWORK INC. WESTERN TEL-COM INC. 4273 58TH STREET HOLLAND, MI 48750	KEN LOPEZ (616) 393-0132	FIBER
OSCODA TOWNSHIP 110 S. STATE STREET OSCODA, MI 48750	DOUG MOEN (989) 254-4831 DAVE SCHAEFFER (989) 739-8299	SANITARY SEWER WATER MAIN

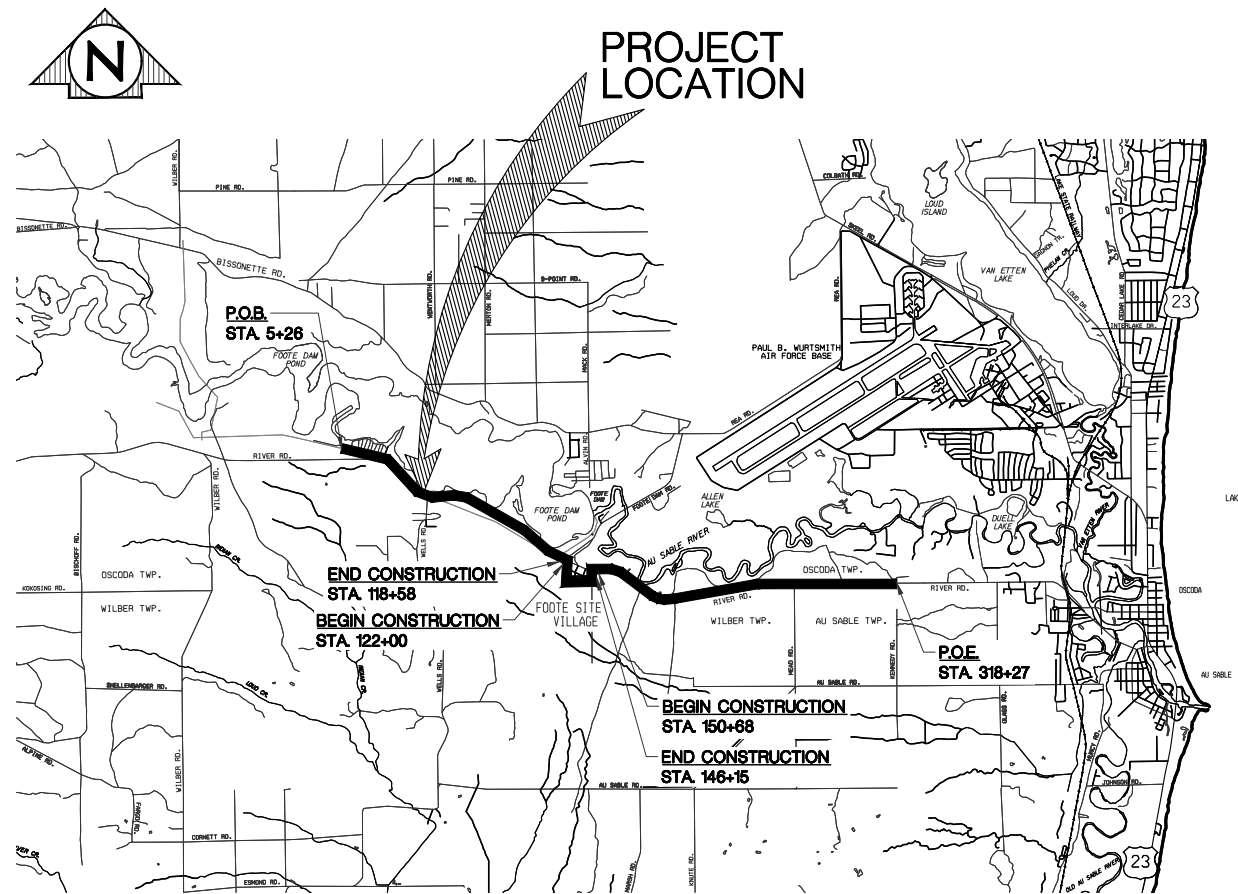
IOSCO COUNTY ROAD COMMISSION
IN COOPERATION WITH
MICHIGAN DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL COMMITTEE

PLAN AND PROFILE OF PROPOSED

PHASE 3 IOSCO EXPLORATION TRAIL

SECTION 28, 29, 33-36 T24N R08E, SECTION 1, 2 T23N R08E, SECTION 31, 32 T24N R09E AND SECTION 5 T23N R09E
OSCODA TOWNSHIP, WILBER TOWNSHIP, AU SABLE TOWNSHIP, IOSCO COUNTY

CONTROL SECTION NO. -
JOB NO. -



RIVER ROAD TRAFFIC DATA

EST. A.D.T. (2019)	2345
EST. A.D.T. (2039)	2860
EX. POSTED SPEED (MPH)	35-55

TRAFFIC DATA

DESIGN SPEED = 18 M.P.H.



Know what's below.
Call before you dig.

PLAN SUBMITTALS AND CHANGES

PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

FOR THE PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL "MISS DIG" AT 1-800-482-7171 OR DIAL 811 OR ONLINE AT WWW.MISSDIG.ORG A MINIMUM OF 3 WORKING DAYS EXCLUDING WEEKENDS AND HOLIDAYS PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE LATEST MDOT STANDARD ROAD PLANS, AND SPECIAL PROVISIONS AS CONTAINED HEREIN.

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE 2012 AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES.

THE PLACEMENT OF PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2011.

FOR ALL CONSTRUCTION ACTIVITY THAT DISTURBS 5 ACRES OR MORE OF LAND, THE OWNER OF THE PROPERTY SHALL OBTAIN AN NPDES STORM WATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE EGLE AS REQUIRED UNDER P.A. 245. THE NOTICE OF COVERAGE APPLICATION SHALL BE SUBMITTED THROUGH THE EGLE MIWATERS PERMITS WEB SITE. THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 13.0 ACRES. A NPDES PERMIT IS REQUIRED FOR THIS PROJECT.

SHEET INDEX

- 1-COVER SHEET
- 2-ALIGNMENT AND CONTROL DATA SHEET
- 3-10 -ALIGNMENT AND CONTROL SHEETS
- 11-LEGEND SHEET
- 12-DETAIL AND MISCELLANEOUS QUANTITY SHEET
- 13-14-TYPICAL CROSS SECTIONS SHEETS
- 15-16 -SOIL BORING LOGS
- 17-PLAN AND PROFILE SHEET-STA 5+26 (P.O.B.) TO STA 15+50
- 18-PLAN AND PROFILE SHEET-STA 15+50 TO STA 26+00
- 19-PLAN AND PROFILE SHEET-STA 26+00 TO STA 36+50
- 20-PLAN AND PROFILE SHEET-STA 36+50 TO STA 47+00
- 21-PLAN AND PROFILE SHEET-STA 47+00 TO STA 57+50
- 22-PLAN AND PROFILE SHEET-STA 57+50 TO STA 68+00
- 23-PLAN AND PROFILE SHEET-STA 68+00 TO STA 78+50
- 24-PLAN AND PROFILE SHEET-STA 78+50 TO STA 89+00
- 25-PLAN AND PROFILE SHEET-STA 89+00 TO STA 99+50
- 26-PLAN AND PROFILE SHEET-STA 99+50 TO STA 110+00
- 27-PLAN AND PROFILE SHEET-STA 110+00 TO STA 117+93 (END CONSTRUCTION)
- 28-PLAN AND PROFILE SHEET-STA 122+68 (BEGIN CONSTRUCTION) TO STA 124+58
- 29-FOOTE SITE VILLAGE CONNECTOR PLAN SHEET-STA 124+58 TO STA 141+41
- 30-PLAN AND PROFILE SHEET-STA 141+41 TO STA 142+40 (END CONSTRUCTION)
- 31-PLAN AND PROFILE SHEET-STA 150+68 (BEGIN CONSTRUCTION) TO STA 160+50
- 32-PLAN AND PROFILE SHEET-STA 160+50 TO STA 171+00
- 33-PLAN AND PROFILE SHEET-STA 171+00 TO STA 181+50
- 34-PLAN AND PROFILE SHEET-STA 181+50 TO STA 192+00
- 35-PLAN AND PROFILE SHEET-STA 192+00 TO STA 202+50
- 36-PLAN AND PROFILE SHEET-STA 202+50 TO STA 213+00
- 37-PLAN AND PROFILE SHEET-STA 213+00 TO STA 223+50
- 38-PLAN AND PROFILE SHEET-STA 223+50 TO STA 234+00
- 39-PLAN AND PROFILE SHEET-STA 234+00 TO STA 244+50
- 40-PLAN AND PROFILE SHEET-STA 244+50 TO STA 255+00
- 41-PLAN AND PROFILE SHEET-STA 255+00 TO STA 265+50
- 42-PLAN AND PROFILE SHEET-STA 265+50 TO STA 276+00
- 43-PLAN AND PROFILE SHEET-STA 276+00 TO STA 286+50
- 44-PLAN AND PROFILE SHEET-STA 286+50 TO STA 297+00
- 45-PLAN AND PROFILE SHEET-STA 297+00 TO STA 307+50
- 46-PLAN AND PROFILE SHEET-STA 307+50 TO STA 318+27 (P.O.E.)

CONTRACT FOR:

5.31 MILES OF NON-MOTORIZED TRAIL CONSTRUCTION FROM OLD ORCHARD CAMPGROUND TO RICHARDSON ELEMENTARY SCHOOL: DRIVEWAYS, CULVERTS, STORM SEWER, ADA SIDEWALK RAMP, HMA PAVEMENT, PAVEMENT MARKINGS, PERMANENT SIGNS, AND TURF RESTORATION.

IOSCO COUNTY ROAD COMMISSION APPROVAL

BRUCE BOLEN, P.E. - MANAGER IOSCO COUNTY ROAD COMMISSION

DATE

PREPARED UNDER SUPERVISION OF

RYAN D. BAIR
REGISTERED PROFESSIONAL ENGINEER

66544
REGISTRATION NO.

ROWE PROFESSIONAL SERVICES COMPANY
ORGANIZATION

540 S. SAGINAW STREET, STE. 200 FLINT, MI 48502
ADDRESS

PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: NOT TO SCALE

ROWE PROFESSIONAL SERVICES COMPANY

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F: (810) 341-7573
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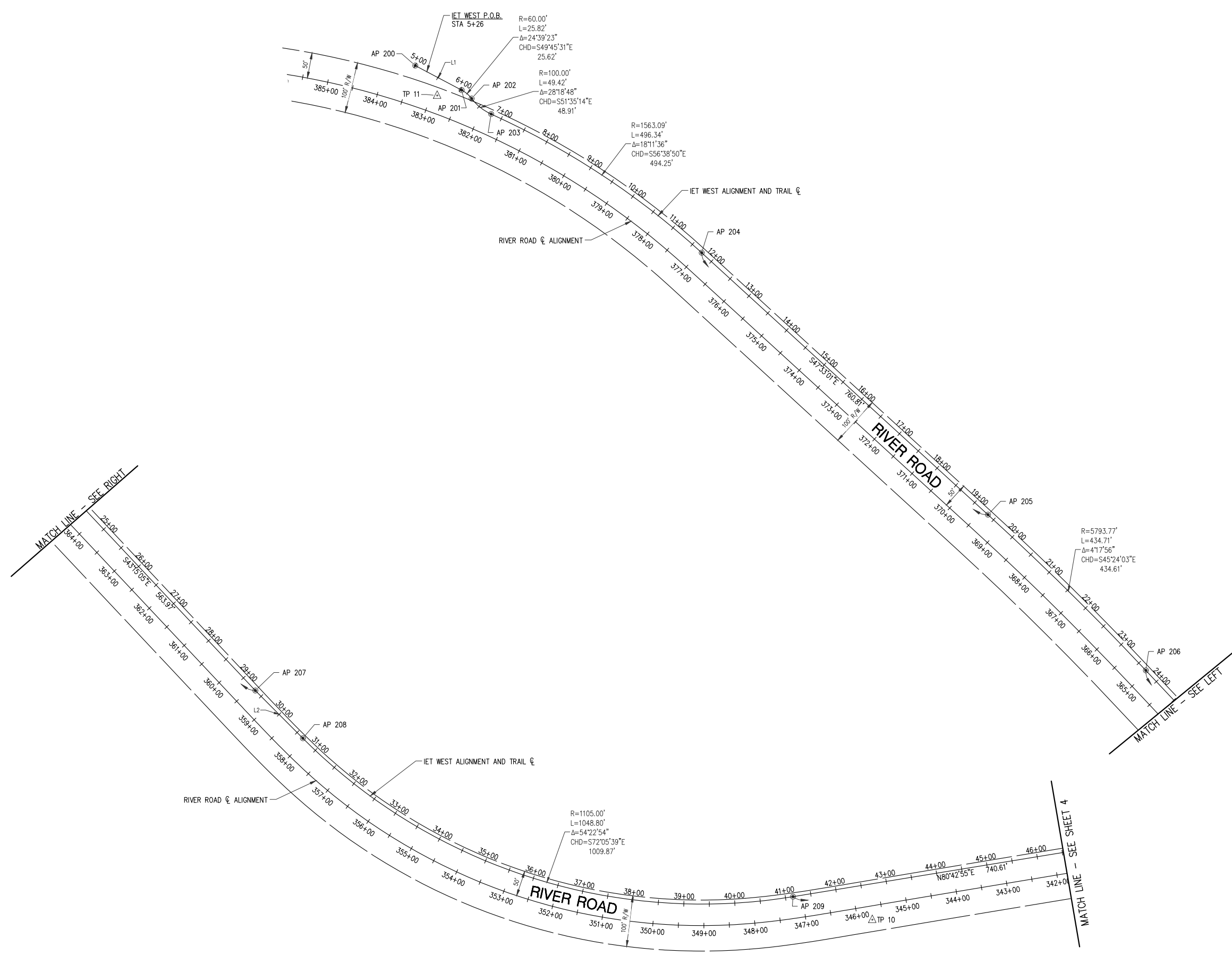
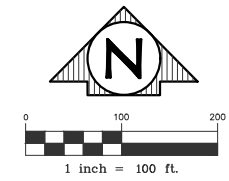
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Flint, MI 48502

PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL

COVER SHEET

REV:

SHT# 1 OF 46
JOB No: 19C0114



ROADWAY LINE DATA		
LINE #	DIRECTION	LENGTH
L1	S62°05'12"E	102.82'
L2	S44°54'12"E	132.08'

LEGEND

▲ BENCHMARK	● ALIGNMENT POINT
△ TRAVERSE POINT	⊕ SECTION CORNER

NOTES:
 VERTICAL DATUM IS -
 HORIZONTAL DATUM IS MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE NAD83 (2011)
 UNITS ARE INTERNATIONAL FEET.



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8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

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 PROJECT MGR: RAF
 REVIEWER: JHR
 SCALE: 1" = 100'

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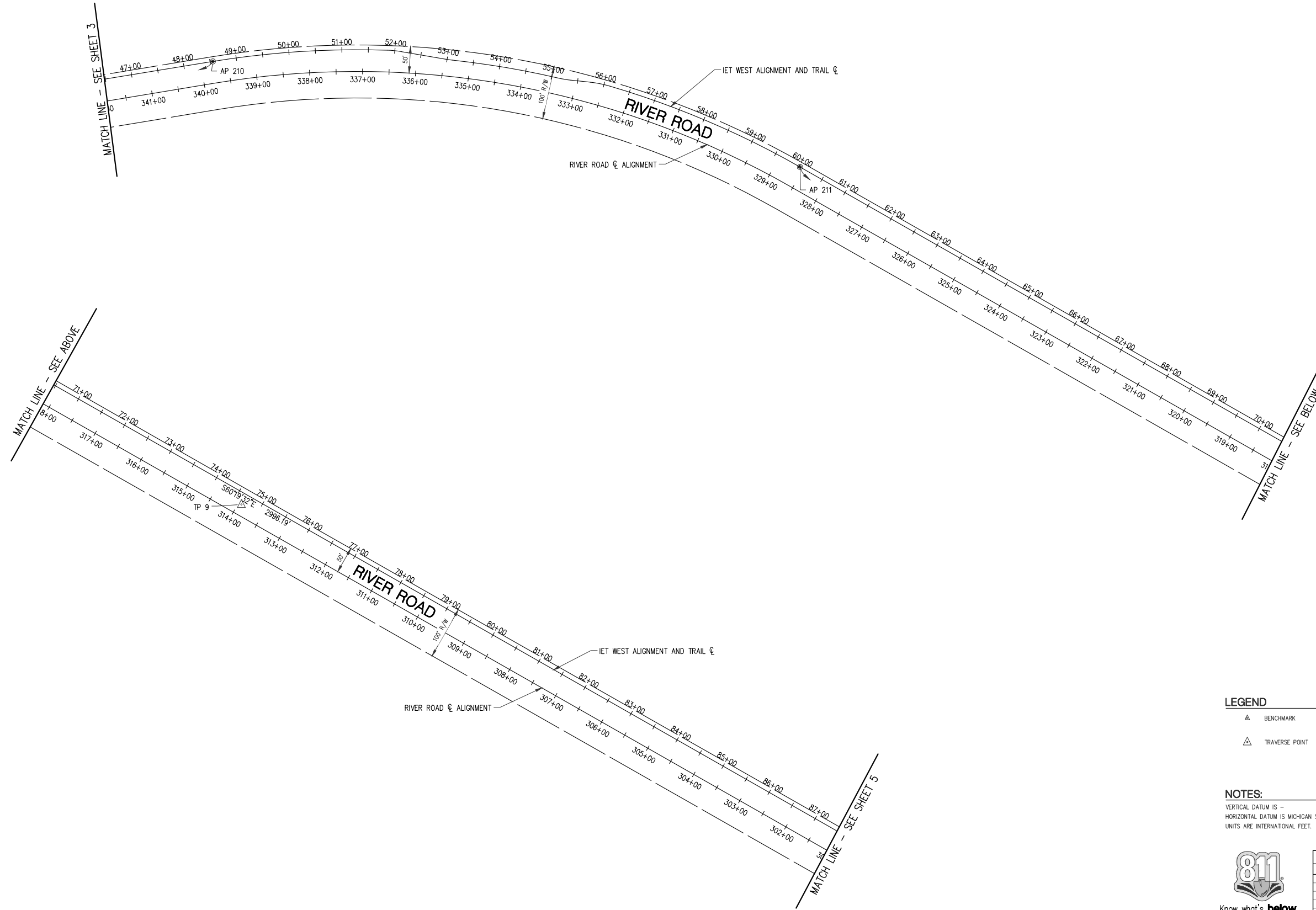
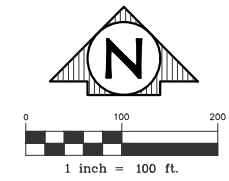
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ALIGNMENT AND CONTROL SHEET

REV: _____
 SHT# **3** OF **46**
 JOB No: 19C0114

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LEGEND

▲ BENCHMARK	● ALIGNMENT POINT
△ TRAVERSE POINT	⊕ SECTION CORNER

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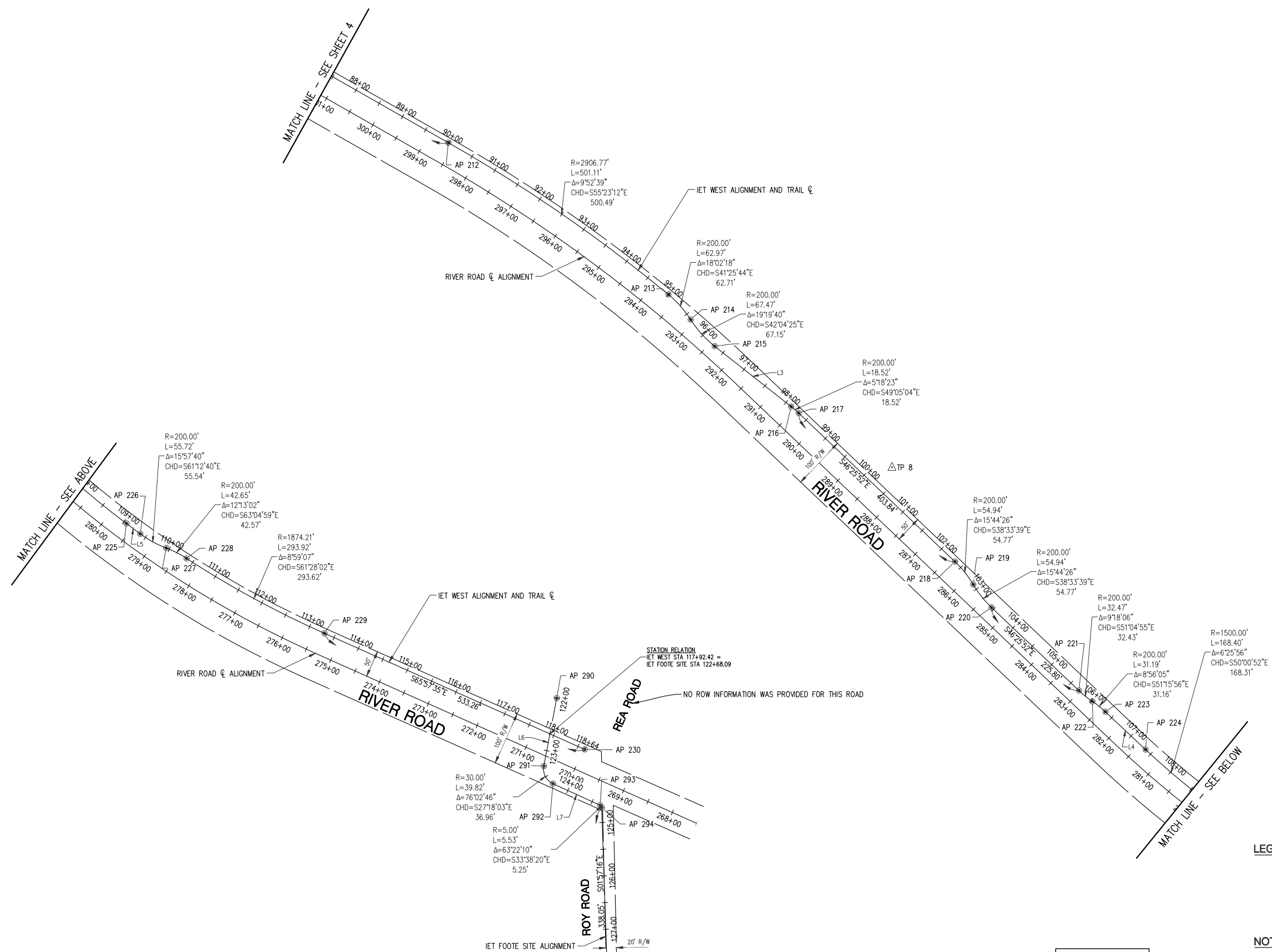
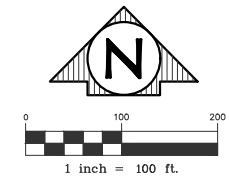
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ALIGNMENT AND CONTROL SHEET

REV: _____
 SHT# 4 OF 46
 JOB No: 19C0114



STATION RELATION
 IET WEST STA 117+92.42 =
 IET FOOTIE SITE STA 122+68.09

NO ROW INFORMATION WAS PROVIDED FOR THIS ROAD

ROADWAY LINE DATA		
LINE #	DIRECTION	LENGTH
L3	S51°44'15"E	182.23'
L4	S46°47'54"E	103.07'
L5	S53°13'50"E	32.46'

LEGEND

▲ BENCHMARK	● ALIGNMENT POINT
△ TRAVERSE POINT	⊕ SECTION CORNER

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PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: JHR
 SCALE: 1" = 100'

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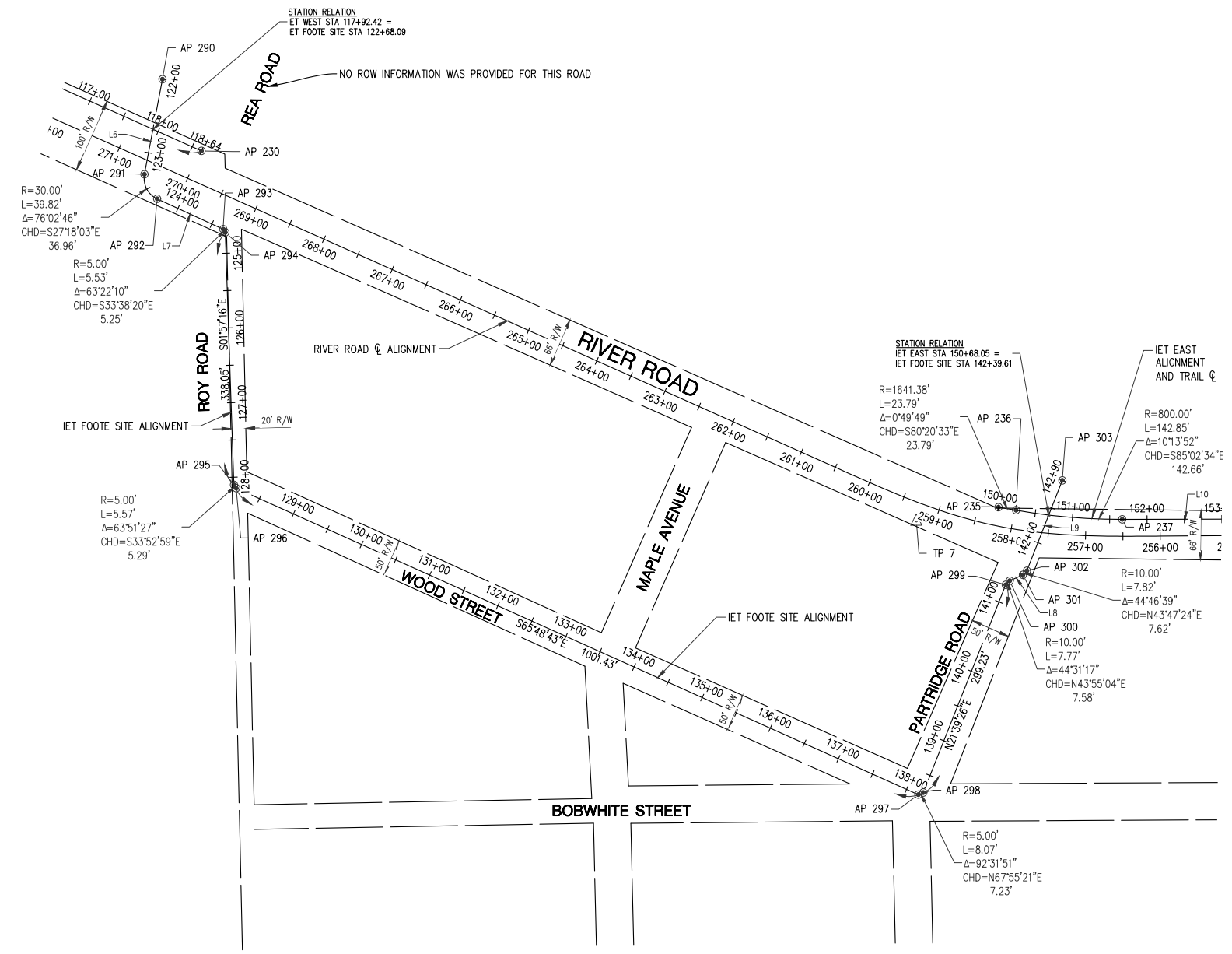
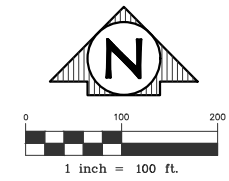
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ALIGNMENT AND CONTROL SHEET

REV: _____
 SHT# 5 OF 46
 JOB No: 19C0114

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ROADWAY LINE DATA		
LINE #	DIRECTION	LENGTH
L6	S10°43'20"W	129.45'
L7	S65°19'25"E	97.35'
L8	N66°10'43"E	19.36'
L9	N21°24'04"E	130.09'

LEGEND

▲ BENCHMARK	● ALIGNMENT POINT
△ TRAVERSE POINT	⊕ SECTION CORNER

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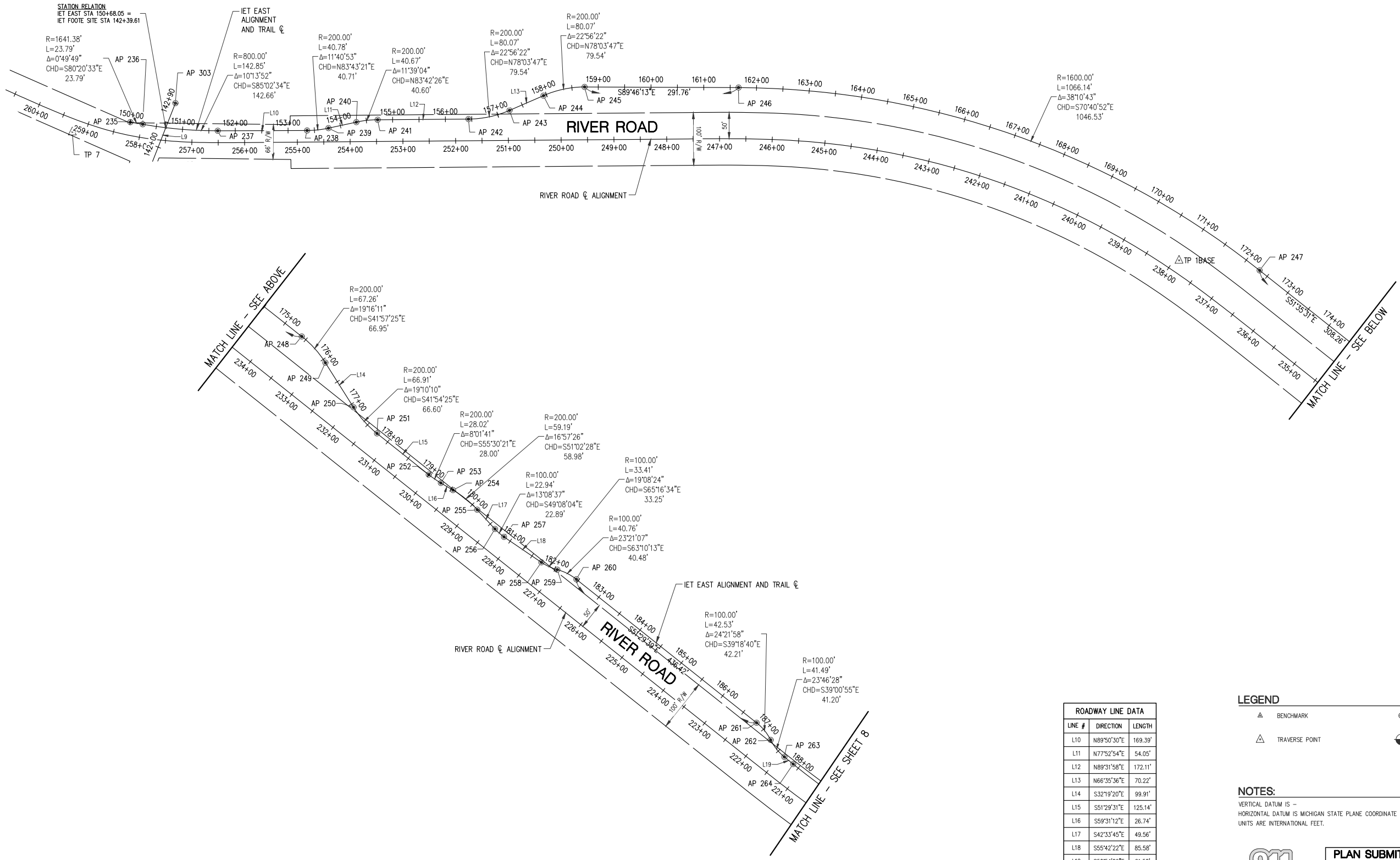
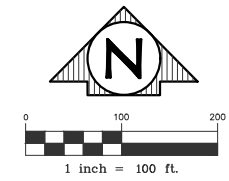
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IOSCO EXPLORATION TRAIL

ALIGNMENT AND CONTROL SHEET

REV: _____
 SHT# **6** OF **46**
 JOB No: 19C0114

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ROADWAY LINE DATA		
LINE #	DIRECTION	LENGTH
L10	N89°50'30"E	169.39'
L11	N77°52'54"E	54.05'
L12	N89°31'58"E	172.11'
L13	N66°35'36"E	70.22'
L14	S32°19'20"E	99.91'
L15	S51°29'31"E	125.14'
L16	S59°31'12"E	26.74'
L17	S42°33'45"E	49.56'
L18	S55°42'22"E	85.58'
L19	S50°54'09"E	21.50'

- LEGEND**
- ▲ BENCHMARK
 - ALIGNMENT POINT
 - △ TRAVERSE POINT
 - ⊕ SECTION CORNER

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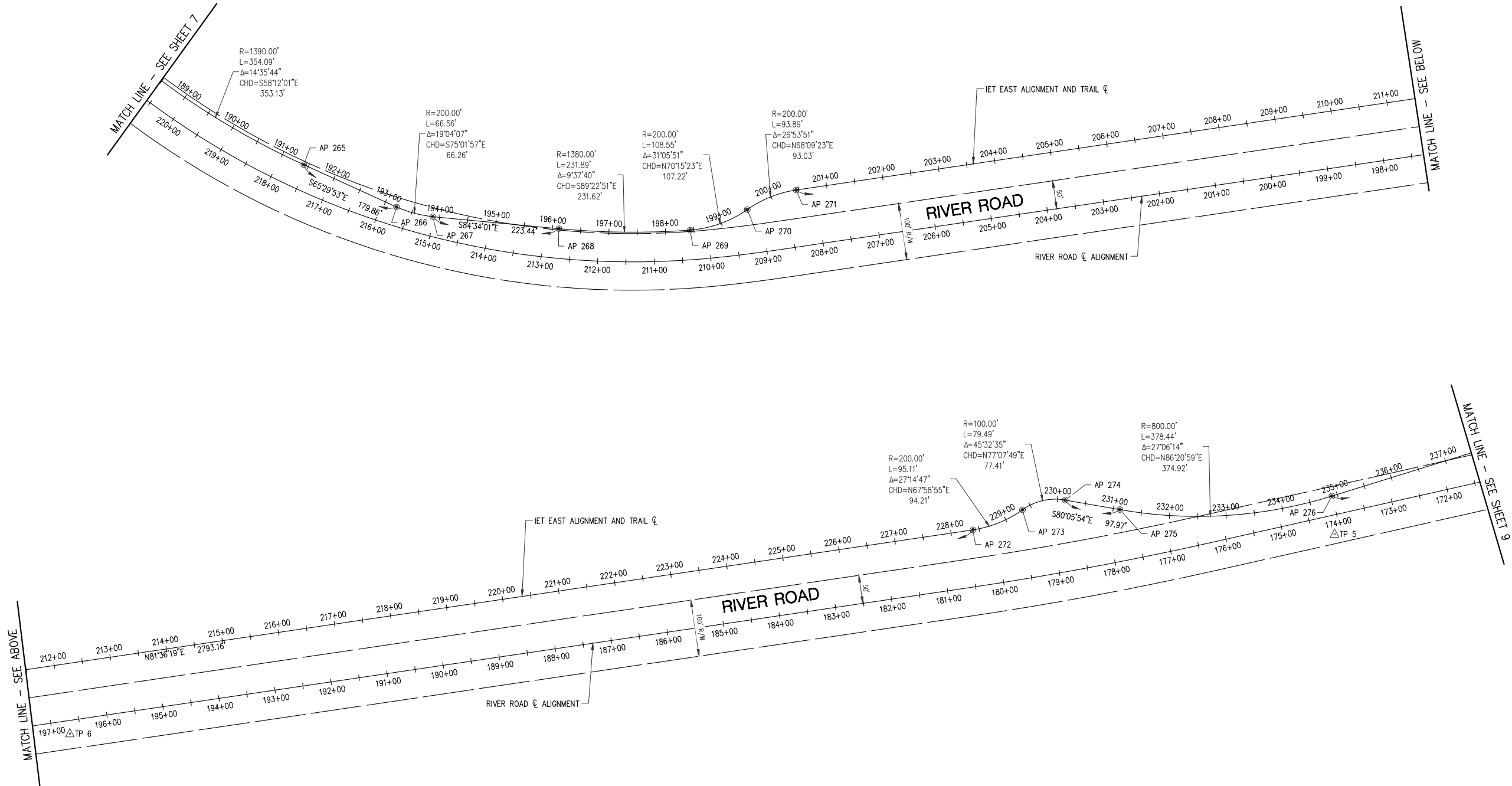
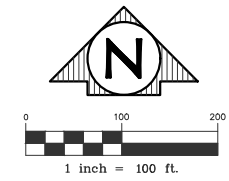
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REV: _____
 SHT# **7** OF **46**
 JOB No: 19C0114

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LEGEND

▲ BENCHMARK	● ALIGNMENT POINT
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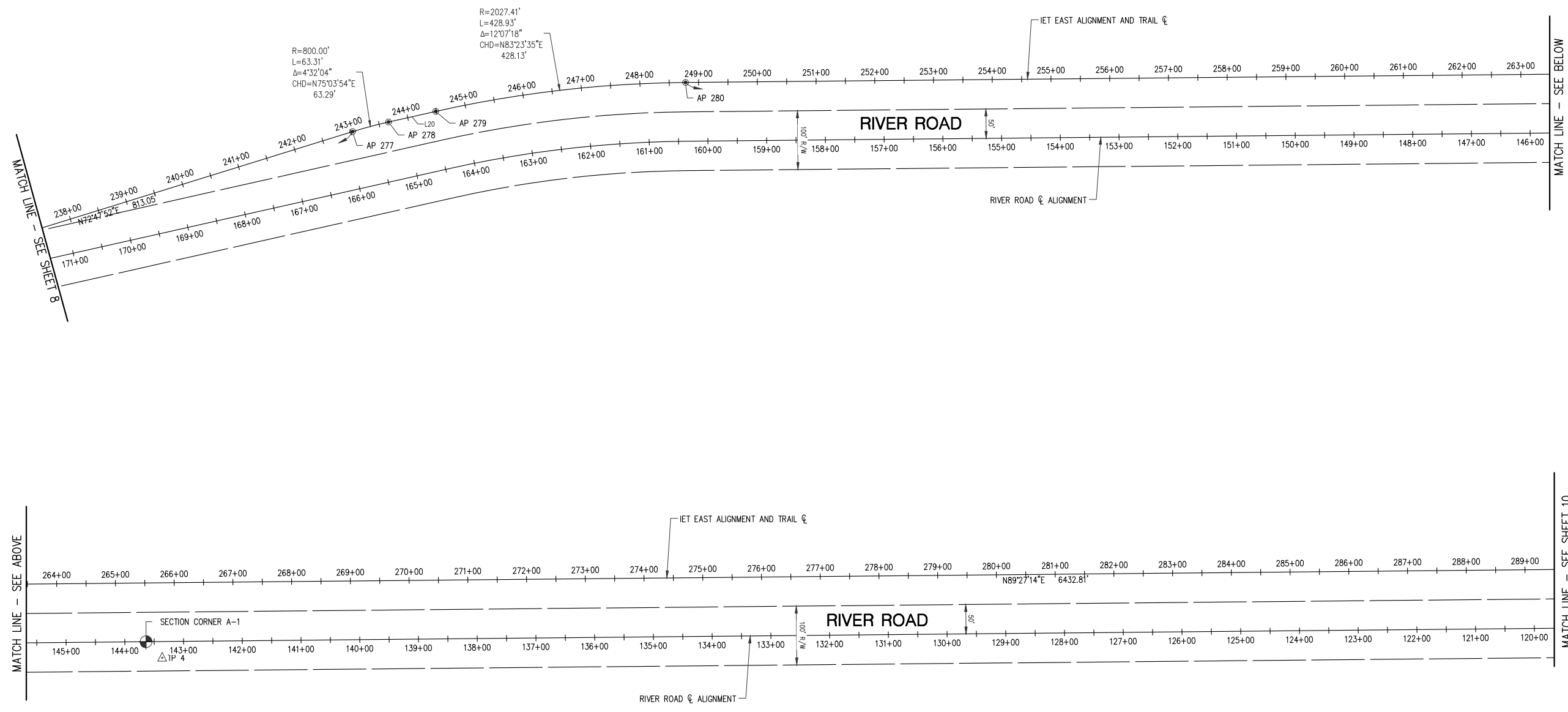
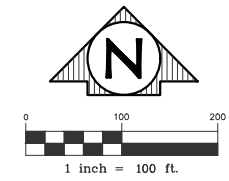
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ALIGNMENT AND CONTROL SHEET

SHT# 8 OF 46
 JOB No: 19C0114

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PLAN DATE: SEPTEMBER 2019
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ALIGNMENT AND CONTROL SHEET

LEGEND

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ROADWAY LINE DATA

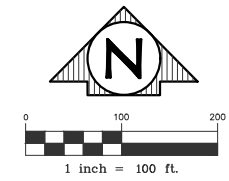
LINE #	DIRECTION	LENGTH
L20	N77°19'56"E	82.37'



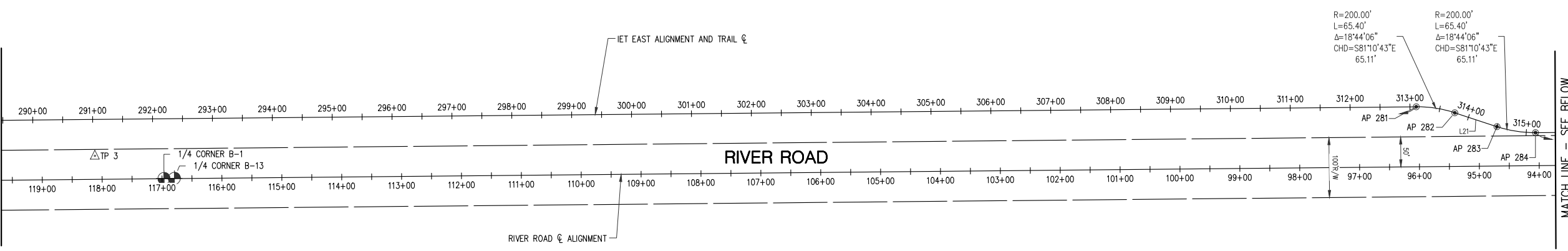
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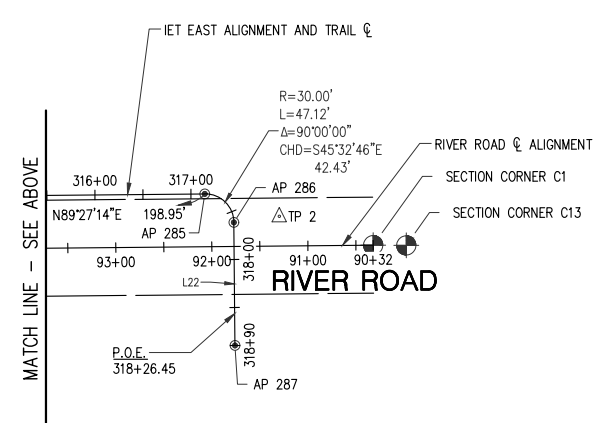
REV: _____
 SHT# **9** OF **46**
 JOB No: 19C0114



MATCH LINE - SEE SHEET 9



MATCH LINE - SEE BELOW



ROADWAY LINE DATA		
LINE #	DIRECTION	LENGTH
L21	S71°46'39"E	74.12'
L22	S0°32'46"E	128.17'

LEGEND

▲ BENCHMARK	● ALIGNMENT POINT
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PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL

ALIGNMENT AND CONTROL SHEET

REV: _____
 SHT# 10 OF 46
 JOB No: 19C0114

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STRUCTURE SYMBOLS

- EXISTING CATCH BASIN IN CURB LINE
- PROPOSED CATCH BASIN IN CURB LINE
- EXISTING CATCH BASIN IN GREEN SPACE
- PROPOSED CATCH BASIN IN GREEN SPACE
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED CULVERT END SECTION
- EXISTING HEADWALL
- PROPOSED HEADWALL
- EXISTING WATER SHUTOFF (SERVICE VALVE)
- EXISTING GATE VALVE AND BOX (STOP BOX)
- PROPOSED GATE VALVE AND BOX
- EXISTING GATE VALVE AND WELL
- PROPOSED GATE VALVE AND WELL
- EXISTING SPRINKLER HEAD
- EXISTING WATER WELL
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER MAIN FITTINGS
- EXISTING CLEAN OUT
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING MONITORING WELL

EXISTING TOPOGRAPHICAL SYMBOLS

- SIGN
- STREET SIGN
- END OF PIPE
- SWAMP OR WETLAND
- DECIDUOUS TREE
- CONIFEROUS TREE
- TREE STUMP
- MAIL BOX
- SOIL BORING
- ROCK
- METAL POST
- BUMPER BLOCK

UTILITY SYMBOLS

- UTILITY POLE
- GUY ANCHOR CABLE
- LIGHT POLE / ORNAMENTAL LIGHT
- POWER LIGHT POLE
- TELEPHONE MANHOLE
- UNDERGROUND GAS LINE MARKER
- GAS RISER
- GAS VENT
- GAS VALVE
- RAILROAD SIGNAL
- METAL LIGHT POLE
- OUTLET
- CIRCUIT BREAKER PANEL
- ELECTRICAL TRANSFORMER PAD
- ELECTRICAL TRANSFORMER RISER
- ELECTRIC METER
- TELEPHONE PEDESTAL / RISER
- TRAFFIC SIGNAL ON POLE
- PHONE BOOTH / PAY PHONE

SURVEY SYMBOLS

- MONUMENT
- BENCHMARK
- TRAVERSE POINT
- SECTION CORNER
- FOUND SURVEY MONUMENTATION

MISCELLANEOUS SYMBOLS

- EXISTING STORM SEWER STRUCTURE NUMBER
- EXISTING SANITARY SEWER STRUCTURE NUMBER
- PROPOSED STORM SEWER STRUCTURE NUMBER
- PROPOSED SANITARY SEWER STRUCTURE NUMBER
- FLOW DIRECTION
- EXISTING RIP-RAP
- PROPOSED RIP-RAP

CAUTION SYMBOLS

HAZARDOUS FLAMMABLE MATERIAL UNDERGROUND USED WITH UNDERGROUND GAS & ELECTRICAL LINES

FIBER OPTIC USED WITH FIBER OPTICS LINES

PLAN VIEW LINE TYPES

- EXISTING STORM SEWER
- EXISTING CULVERT
- PROPOSED STORM SEWER LESS THAN 24"
- PROPOSED STORM SEWER 24" AND GREATER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- SECTION LINE
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENT
- EXISTING CENTER LINE DITCH
- PROPOSED DITCH CENTERLINE
- EXISTING CENTER LINE ROADWAY
- PARCEL LINE / LOT LINE
- EXISTING OVERHEAD UTILITIES
- UNDERGROUND ELECTRICAL LINE
- GAS LINE OR PETROLEUM PIPELINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE TV LINE
- UNDERGROUND FIBER OPTIC
- PROJECT CONTROL LINE
- TREE LINE
- BRUSH LINE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING GUARD RAIL
- PROPOSED SLOPE STAKE LINE
- PROPOSED SILT FENCE

TOPOGRAPHY

- EXISTING CONTOURS MAJOR
- EXISTING CONTOURS MINOR
- PROPOSED CONTOUR MAJOR
- PROPOSED CONTOURS MINOR

PARCEL INFORMATION

401-069 PARCEL/TAX IDENTIFICATION NUMBER

#5324 ADDRESS/BUSINESS NAME

PAVEMENT IDENTIFICATION

- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- PROPOSED HMA PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED GRAVEL

HATCHING LEGEND

- REMOVE PAVEMENT

PROPOSED CALLOUTS

- | TOPO CALLOUTS | PLAN VIEW | |
|---------------|-----------|-------------------------------|
| ADJ | (ADJ) | ADJUST STRUCTURE |
| ADJ-X | (ADJ-X) | ADJUST STRUCTURE W/ NEW COVER |
| ADJ-B/O | (ADJ-B/O) | ADJUST STRUCTURE BY OTHERS |
| REC | (REC) | RECONSTRUCT STRUCTURE |
| REL | (REL) | RELOCATE |
| REL-B/O | (REL-B/O) | RELOCATE BY OTHERS |
| REM | (R) | REMOVE |
| R&R | (R&R) | REMOVE AND REPLACE |
| SALV | (SALV) | SALVAGE |
| SAVE | (S) | SAVE |
| ABN | (A) | ABANDON |
| CLR | (C) | CLEARING |
| | (B) | BULKHEAD |
| | (SR-F) | SIDEWALK RAMP TYPE |
| | (6) | SOIL EROSION CONTROL MEASURE |

PLAN SUBMITTALS AND CHANGES

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: NOT TO SCALE

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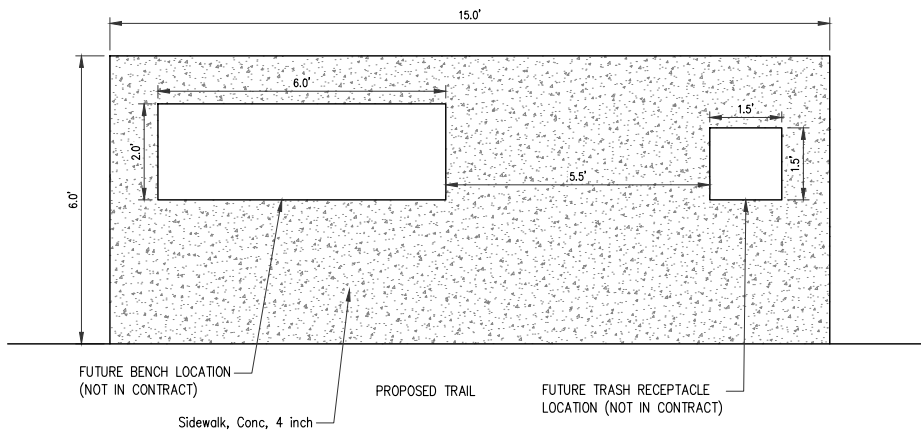
PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
 LEGEND SHEET

REV: _____
 SHT# 11 OF 46
 JOB No: 19C0114



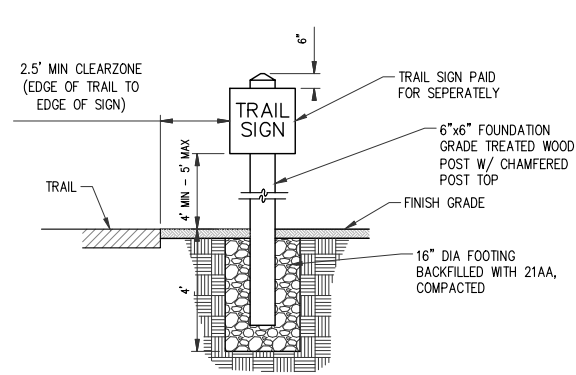
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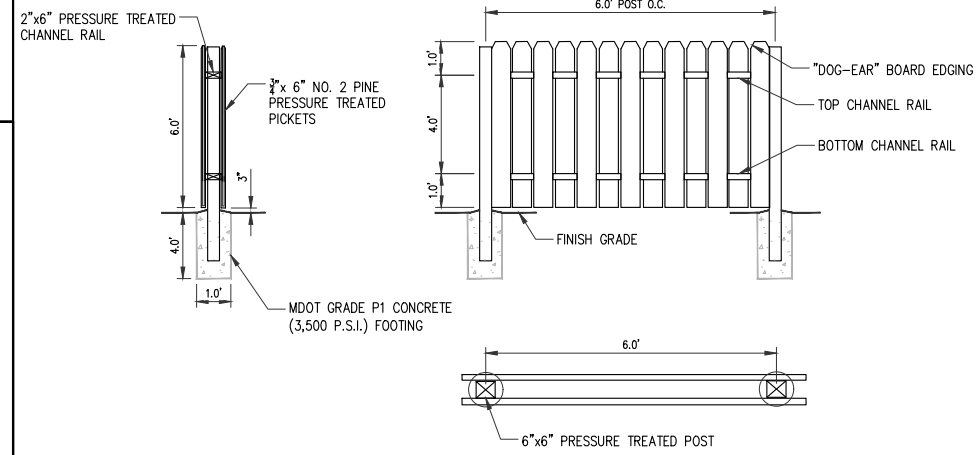
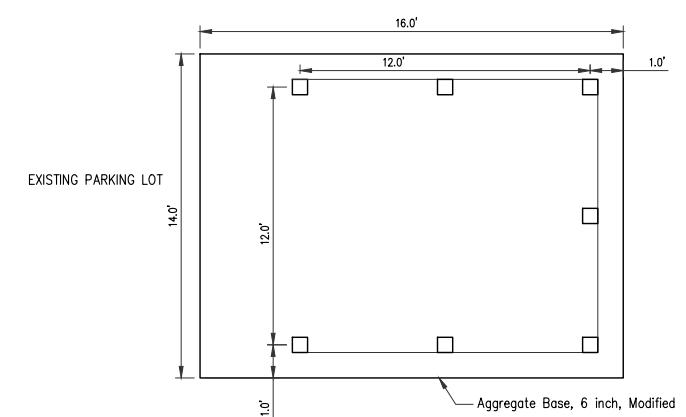
- NOTE:
- SEE SIDEWALK DETAIL BELOW FOR CROSS-SECTION OF REST STATION.

REST STATION DETAIL
NOT TO SCALE



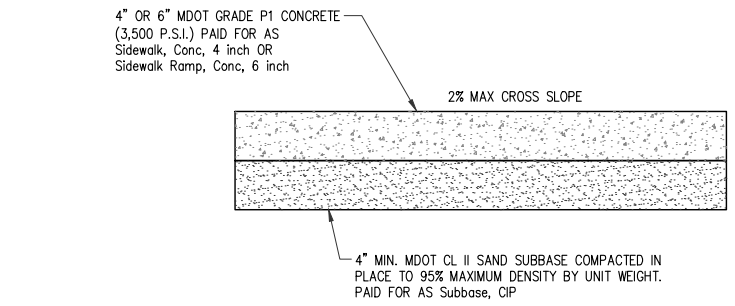
- NOTE:
- ALL COSTS TO CONSTRUCT SIGN POST INCLUDING FOOTING PAID FOR AS Post, Wood, Sign.
 - SEE SHEETS 17, 27, 28, 29, 30, AND 31 FOR WOOD SIGN POST LOCATIONS.

WOOD SIGN POST DETAIL
NOT TO SCALE

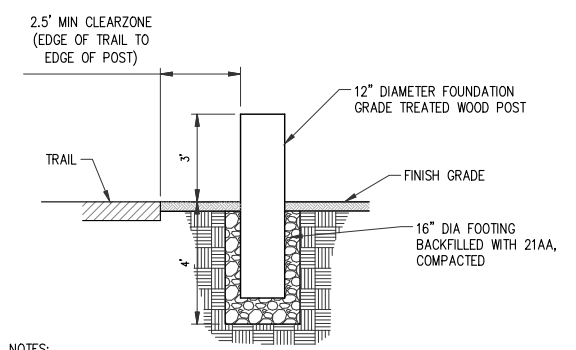


- NOTES:
- EXCAVATION FOR PROPOSED AGGREGATE BASE TO BE PAID FOR AS Shared use Path, Grading.
 - SEE SHEET 26 FOR DUMPSTER ENCLOSURE LOCATION.
 - REMOVAL OF EXISTING WOOD GUARD POST AT PROPOSED DUMPSTER ENCLOSURE LOCATION PAID FOR AS Clearing, Modified

DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE

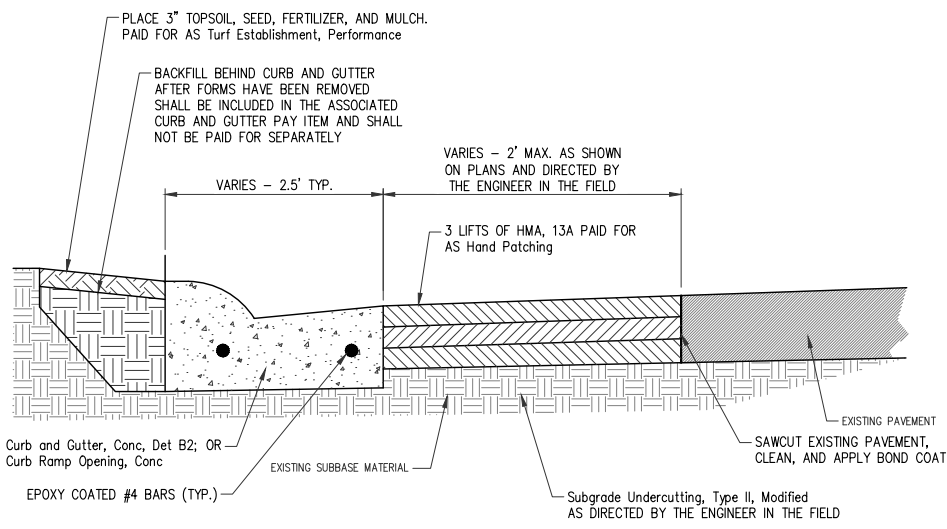


SIDEWALK DETAIL
NOT TO SCALE



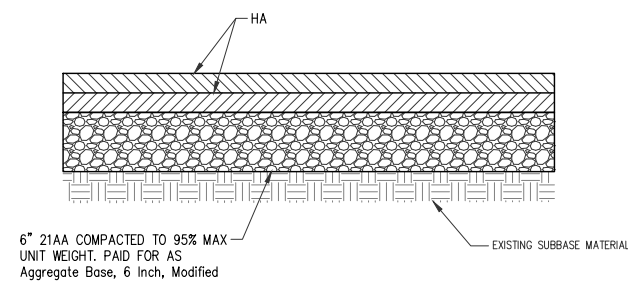
- NOTES:
- ALL COSTS TO CONSTRUCT SIGN POST INCLUDING FOOTING PAID FOR AS Post, Wood Guard.
 - POST SHALL BE SPACED 5.5' ON CENTER OR MATCH SPACING OF EXISTING BOLLARDS ADJACENT TO PROPOSED POST LOCATIONS.
 - SEE SHEETS 25 AND 26 FOR GUARD POST LOCATIONS.

WOOD GUARD POST DETAIL
NOT TO SCALE



- NOTES:
- SAWCUTTING AND REMOVAL OF EXISTING PAVEMENT AND CURB SHALL BE PAID FOR AS: Pavt, Rem, AND Curb and Gutter, Rem.
 - Subgrade Undercutting, Type II, Modified SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER IN THE FIELD. REMOVAL AND COMPACTION OF EXISTING SUBGRADE SHALL BE PAID FOR AS: Subgrade Undercutting, Type II, Modified.

CURB AND GUTTER REPLACEMENT DETAIL
NOT TO SCALE



APPROACH CROSS SECTION DETAIL
NOT TO SCALE

MISCELLANEOUS QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Mobilization, Max	1	LSUM
Granular Material, Cl II	400	Cyd
Subgrade Undercutting, Type II, Modified	500	Cyd
Project Cleanup	1	LSUM
Geotextile, Stabilization	12550	Syd
Culv End Sect, Metal, 12 inch	4	Ea
Culv, Cl F, CSP, 12 inch	40	Ft
Underdrain, Subgrade, 4 inch	4000	Ft
Underdrain Outlet, 4 inch	150	Ft
Underdrain, Outlet Ending, 4 inch	15	Ea
Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	10	Ea
Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	10	Ea
Pedestrian Type II Barricade, Temp	4	Ea
Lighted Arrow, Type C, Furn	2	Ea
Lighted Arrow, Type C, Oper	2	Ea
Minor Traf Devices	1	LSUM
Plastic Drum, High Intensity, Furn	380	Ea
Plastic Drum, High Intensity, Oper	380	Ea
Sign, Type B, Temp, Prismatic, Furn	554	Sft
Sign, Type B, Temp, Prismatic, Oper	554	Sft
Traf Regulator Control	1	LSUM
Riprap, Plain	30	Syd
Audio Video Construction Area Survey	1	LSUM



PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

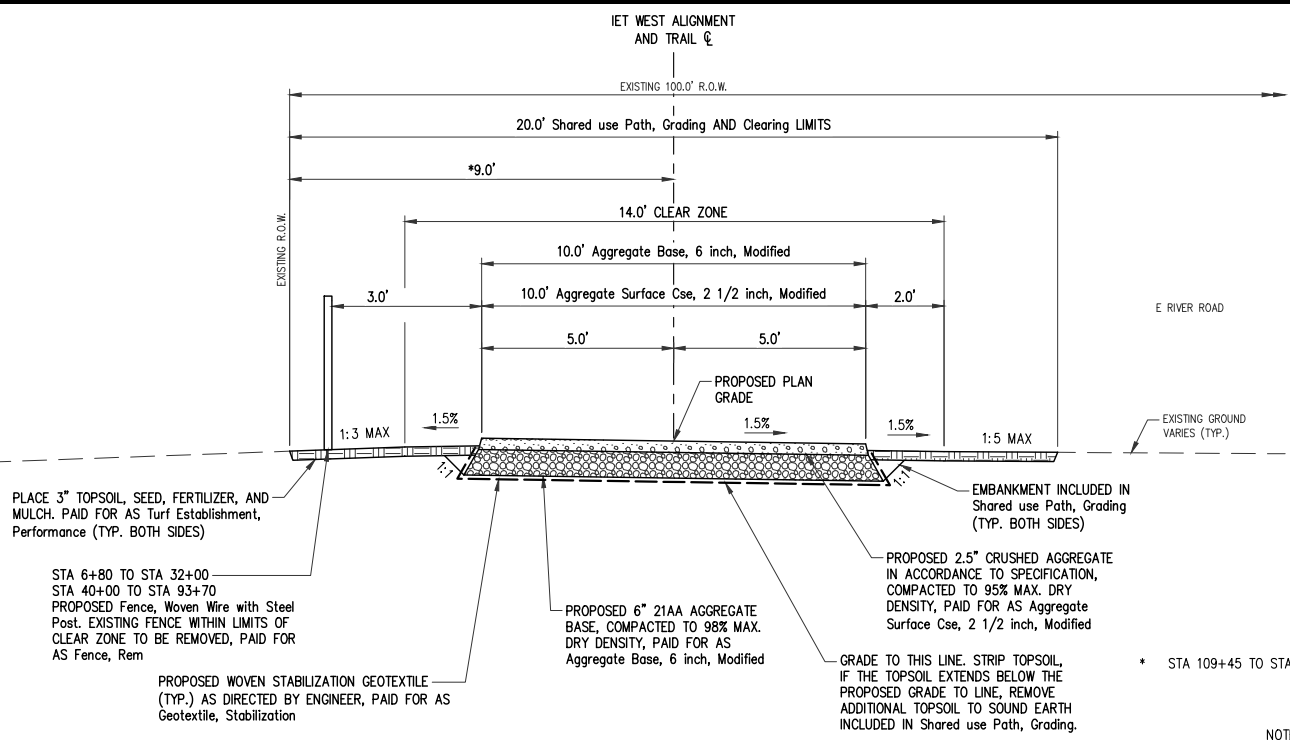
PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: NOT TO SCALE

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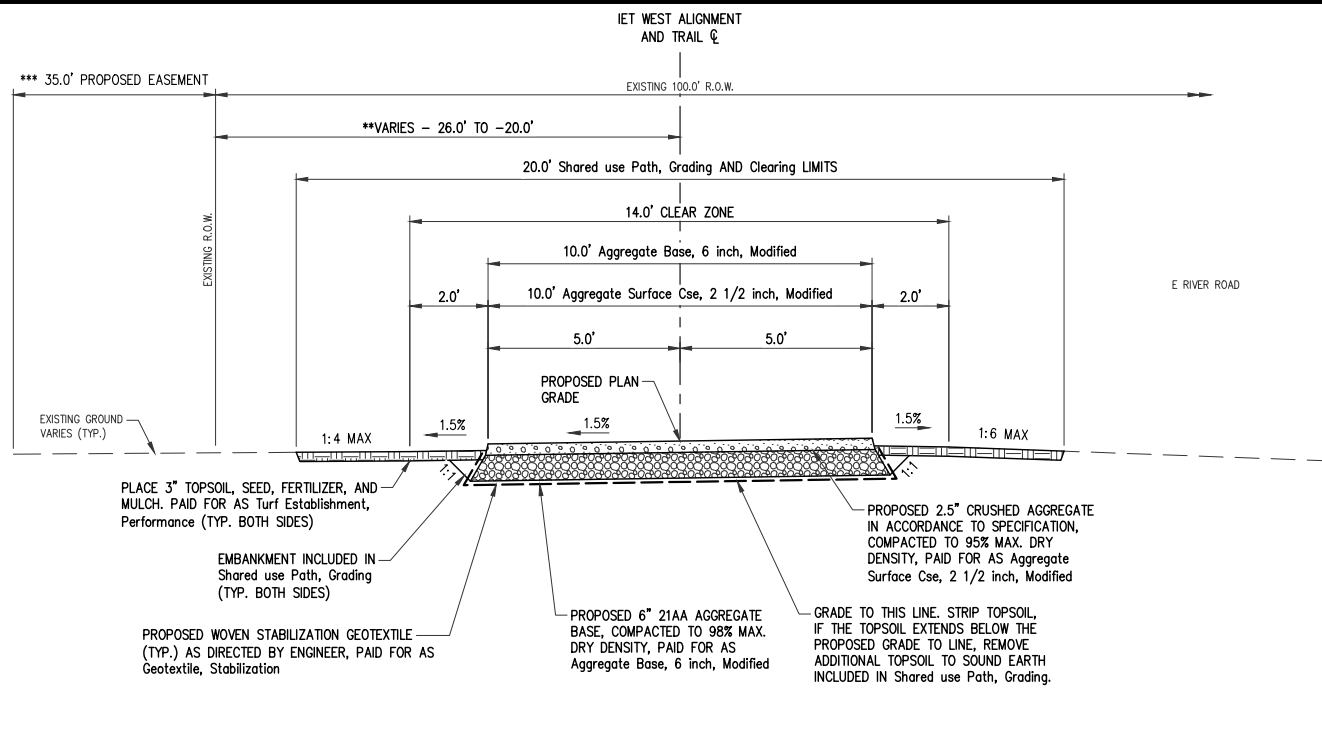
PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
DETAIL AND MISCELLANEOUS QUANTITY SHEET

REV:
SHT# 12 OF 46
JOB No: 19C0114

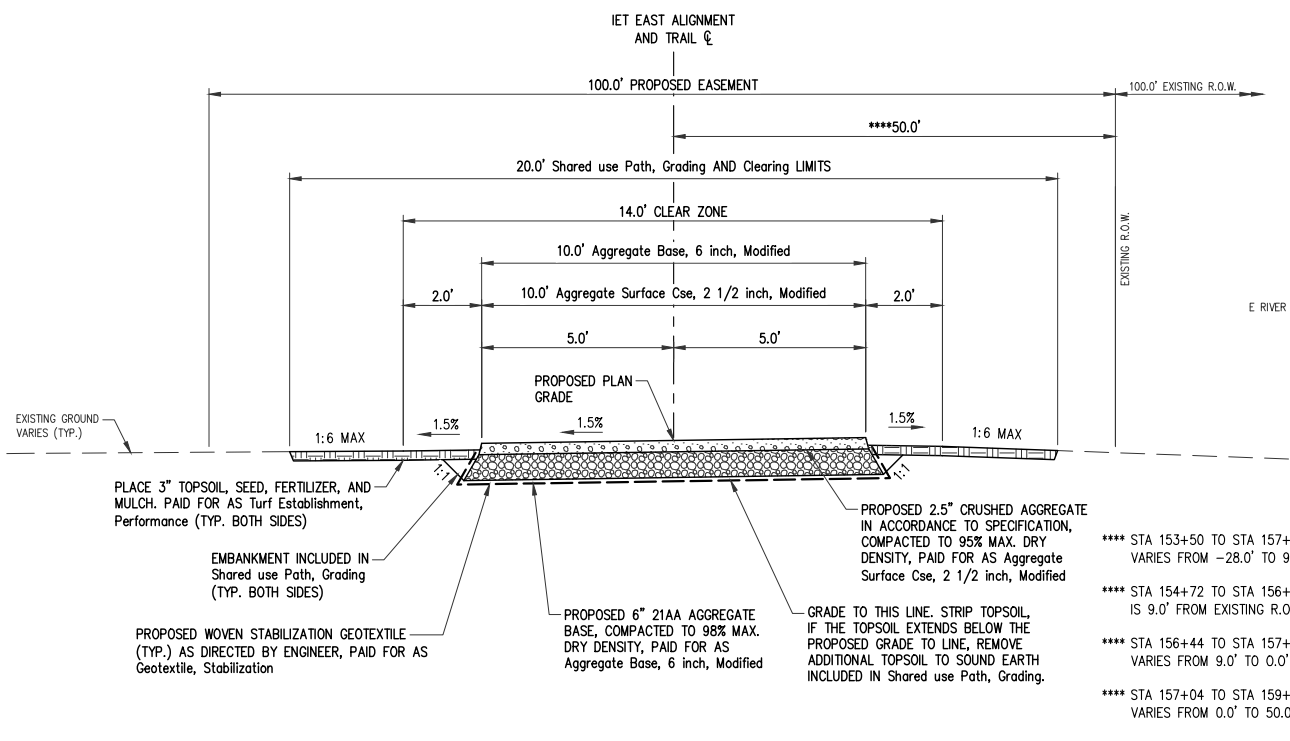
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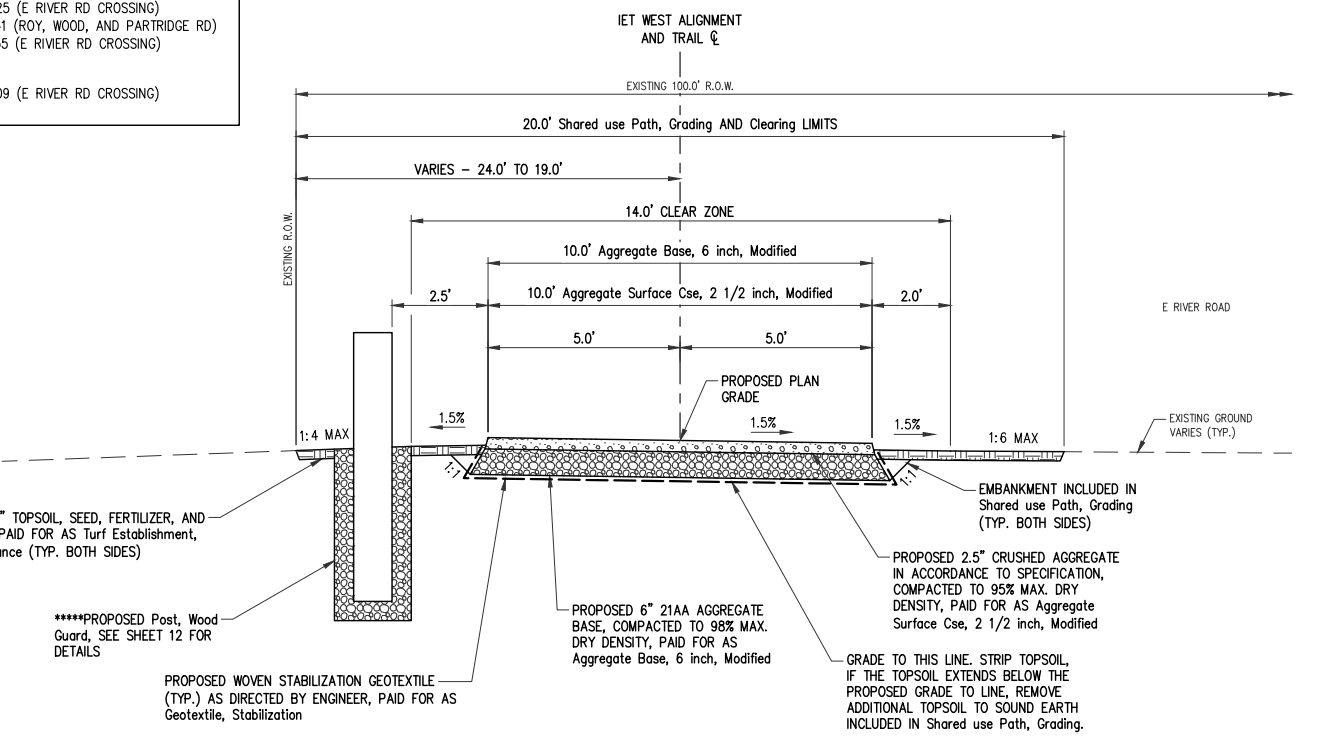
PROPOSED GRAVEL TRAIL CROSS SECTION
 IET WEST ALIGNMENT - APPLIES TO: STA 6+80 TO STA 95+00
 STA 109+45 TO STA 117+93



PROPOSED GRAVEL TRAIL CROSS SECTION
 IET WEST ALIGNMENT - APPLIES TO: STA 6+07 TO STA 6+80
 STA 95+00 TO STA 95+86
 STA 96+93 TO STA 104+38
 STA 105+43 TO STA 107+45



PROPOSED GRAVEL TRAIL CROSS SECTION
 IET EAST ALIGNMENT - APPLIES TO: STA 153+50 TO STA 315+25



PROPOSED GRAVEL TRAIL CROSS SECTION
 IET WEST ALIGNMENT - APPLIES TO: STA 95+86 TO STA 96+93
 STA 104+38 TO STA 105+43
 STA 107+45 TO STA 109+45

NOTES:
 1. TRAIL CROSS SLOPE SHALL FLOW IN THE DIRECTION OF POSITIVE DRAINAGE ALONG ALIGNMENT.
 2. TRANSITION CROSS SLOPE OF +1.5% TO -1.5% OVER 50 FEET.

NO WORK IN THE FOLLOWING AREAS:

IET WEST:
 STA 5+41 TO STA 5+52 (OLD ORCHARD PARK EXIT)
 STA 5+79 TO STA 5+92 (OLD ORCHARD PARK ENTRANCE)
 STA 100+07 TO STA 100+27 (FOOTE SITE PARK EXIT)
 STA 100+36 TO STA 100+57 (FOOTE SITE PARK ENTRANCE)
 STA 107+06 TO STA 107+50 (FOOTE SITE PARK ENTRANCE/EXIT)

IET FOOTE SITE:
 STA 122+85 TO STA 123+25 (E RIVER RD CROSSING)
 STA 124+58 TO STA 141+41 (ROY, WOOD, AND PARTRIDGE RD)
 STA 141+95 TO STA 142+35 (E RIVER RD CROSSING)

IET EAST:
 STA 317+73 TO STA 318+09 (E RIVER RD CROSSING)

- **** STA 153+50 TO STA 157+04 - ϕ OF TRAIL VARIES FROM -28.0' TO 9.0'
- **** STA 154+72 TO STA 156+44 - ϕ OF TRAIL IS 9.0' FROM EXISTING R.O.W.
- **** STA 156+44 TO STA 157+04 - ϕ OF TRAIL VARIES FROM 9.0' TO 0.0'
- **** STA 157+04 TO STA 159+00 - ϕ OF TRAIL VARIES FROM 0.0' TO 50.0'
- **** STA 175+40 TO STA 182+45 - ϕ OF TRAIL VARIES FROM 50.0' TO -10.5'
- **** STA 182+45 TO STA 186+82 - ϕ OF TRAIL IS 12.0' FROM EXISTING R.O.W.
- **** STA 186+82 TO STA 200+46 - ϕ OF TRAIL VARIES FROM -18.5' TO 50.0'
- **** STA 228+40 TO STA 243+67 - ϕ OF TRAIL VARIES FROM 80.8' TO -19.0'
- **** STA 313+10 TO STA 315+25 - ϕ OF TRAIL VARIES FROM 50.0' TO 5.0'

PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: NOT TO SCALE

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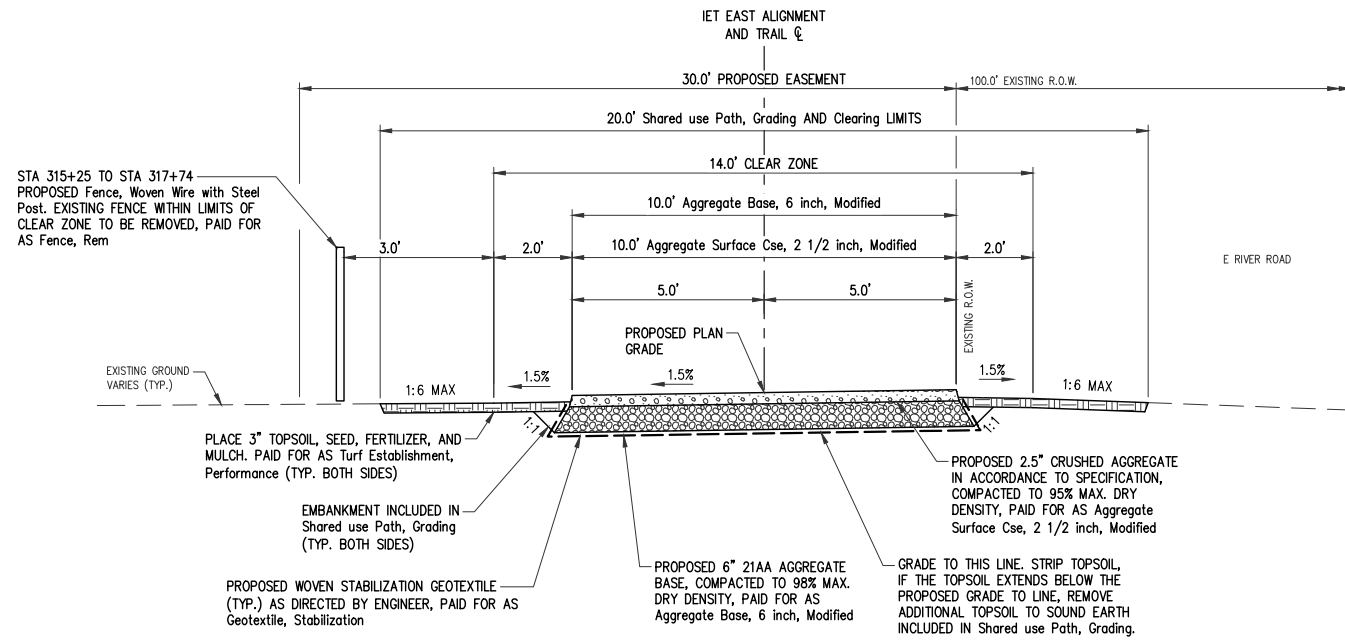
TYPICAL CROSS SECTIONS SHEET



PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

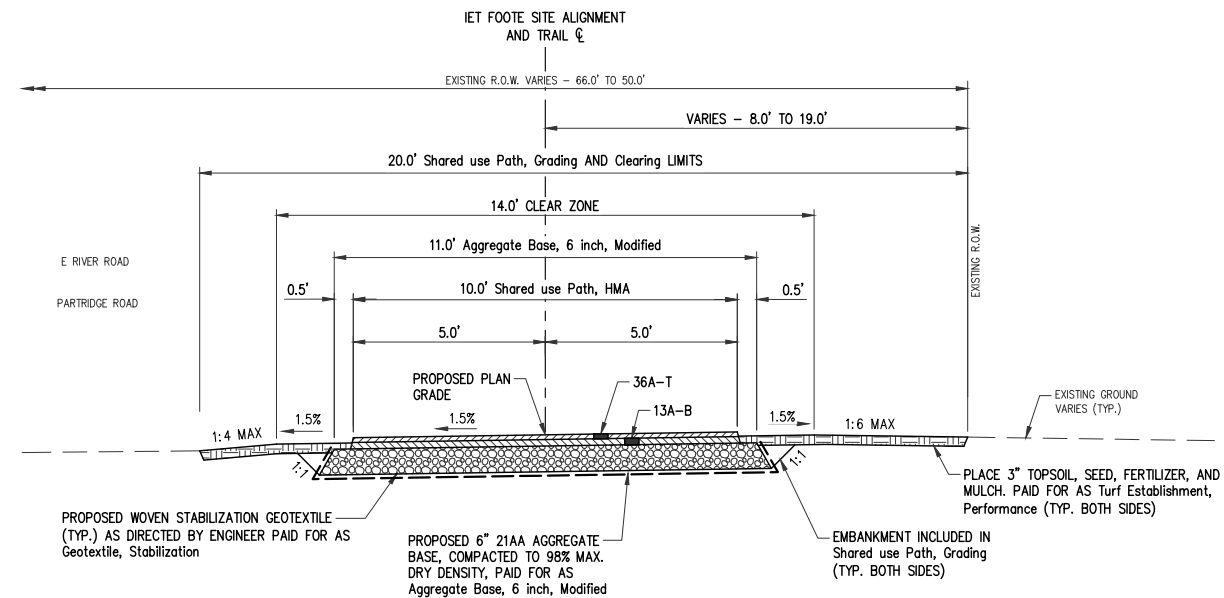
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 SHT# 13 OF 46
 JOB No: 19C0114

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PROPOSED GRAVEL TRAIL CROSS SECTION

IET EAST ALIGNMENT - APPLIES TO: STA 315+25 TO 318+27 (P.O.E.)



PROPOSED HMA TRAIL CROSS SECTION

IET FOOTE SITE ALIGNMENT - APPLIES TO: STA 123+41 TO STA 124+58
STA 141+41 TO STA 141+78

NOTES:

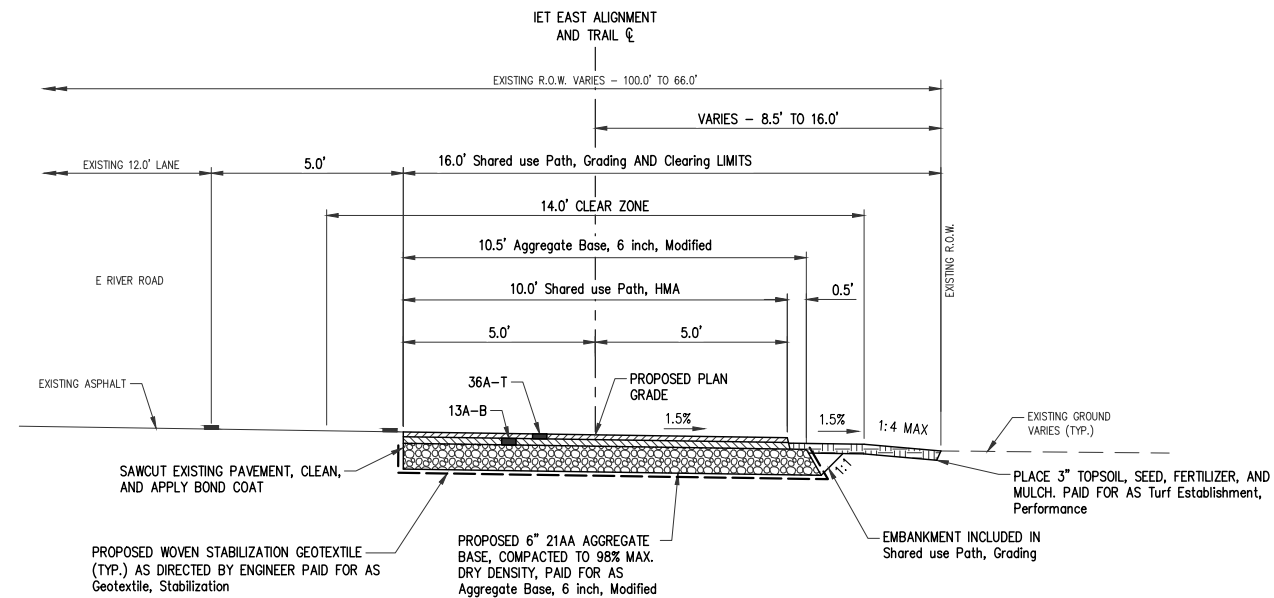
- TRAIL CROSS SLOPE SHALL FLOW IN THE DIRECTION OF POSITIVE DRAINAGE ALONG ALIGNMENT.
- TRANSITION CROSS SLOPE OF +1.5% TO -1.5% OVER 50 FEET.
- PLACE FINAL TOPSOIL GRADE PRIOR TO FINAL HMA TOP COURSE.
- DETECTABLE WARNING SURFACES SHALL BE CAST IN PLACE CAST IRON, FEDERAL COLOR NO. 30252, AND APPROVED BY ENGINEER. TO BE PAID FOR AS Detectable Warning Surface, Modified.
- ALL GRADING, EXCAVATION, AND EMBANKMENT FOR CURB AND GUTTER, SIDEWALKS, AND TRAIL WORK SHOWN ON PLANS TO BE PAID FOR AS Shared use Path, Grading. ESTIMATED CUT IS 5400 CYD AND ESTIMATED FILL IS 400 CYD. THESE VOLUMES ARE ESTIMATES FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY THE VOLUMES AS NECESSARY. THE "CUT" QUANTITY WAS ESTIMATED FROM THE SURFACE OF EXISTING GROUND TOPOGRAPHIC SURVEY (PRE CLEARING CENTERLINE SHOTS EVERY 100'), TO THE BOTTOM OF THE PROPOSED FINISHED SURFACE (TURF OR AGGREGATE BASE). TOPSOIL REMOVAL IS INCLUDED IN THE CUT QUANTITY. TOPSOIL SHALL BE REMOVED IN ITS ENTIRETY WITHIN LIMITS OF AGGREGATE BASE, SUBBASE, AND EMBANKMENT, PAID FOR AS Shared use Path, Grading. THE CUT QUANTITY DOES NOT INCLUDE SUBGRADE UNDERCUTTING OR CULVERT PAY ITEMS. THE "FILL" QUANTITY WAS ESTIMATED FROM THE EXISTING GROUND TOPOGRAPHIC SURVEY WITH TOPSOIL REMOVED (PRE CLEARING SHOTS EVERY 100'), TO THE BOTTOM OF THE PROPOSED FINISHED SURFACE, NOT INCLUDING THE VOLUME OF ASPHALT AND GRAVEL BASE UNDER THE TRAIL.
- REQUIRED BRUSHING, TREE TRIMMING, REMOVING AND DISPOSING OF EXCESS MATERIAL TO BE PAID FOR AS Shared use Path, Grading. A VERTICAL CLEARANCE OF 14 FOOT SHALL BE MAINTAINED ABOVE PROPOSED PLAN GRADE OF TRAIL. AN ESTIMATED 2705 STUMPS RANGING FROM 6 INCH TO 18 INCH HAVE BEEN IDENTIFIED IN CONFLICT WITH PROPOSED TRAIL CLEARZONE TO BE PAID FOR AS Clearing, Modified.
- SUBGRADE UNDERCUTTING IS ANTICIPATED IN VARIOUS LOCATIONS ALONG TRAIL. ESTIMATED 500 CYD OF Subgrade Undercutting, Type II, Modified. AREAS OF SUBGRADE UNDERCUTTING ARE BE BACKFILLED WITH 21AA AGGREGATE, COST INCLUDE IN Subgrade Undercutting, Type II, Modified. THESE VOLUMES ARE ROUGH ESTIMATES FOR INFORMATION ONLY.
- AN ESTIMATED 4000 FEET OF Underdrain, Subgrade, 4 inch; 150 FEET OF Underdrain Outlet, 4 inch; AND 15 EACH Underdrain, Outlet Ending, 4 inch ARE ANTICIPATED ALONG TRAIL TO BE PLACED AS DIRECTED BY ENGINEER.

NO WORK IN THE FOLLOWING AREAS:

IET WEST: STA 5+41 TO STA 5+52 (OLD ORCHARD PARK EXIT)
STA 5+79 TO STA 5+92 (OLD ORCHARD PARK ENTRANCE)
STA 100+07 TO STA 100+27 (FOOTE SITE PARK EXIT)
STA 100+36 TO STA 100+57 (FOOTE SITE PARK ENTRANCE)
STA 107+06 TO 107+50 (FOOTE SITE PARK ENTRANCE/EXIT)

IET FOOTE SITE: STA 122+85 TO STA 123+25 (E RIVER RD CROSSING)
STA 124+58 TO STA 141+41 (ROY, WOOD, AND PARTRIDGE RD)
STA 141+95 TO STA 142+35 (E RIVER RD CROSSING)

IET EAST: STA 317+73 TO STA 318+09 (E RIVER RD CROSSING)



PROPOSED HMA TRAIL CROSS SECTION

IET EAST ALIGNMENT - APPLIES TO: STA 150+74 TO STA 153+50

TRAIL HMA APPLICATION CHART

IDENT NO	ITEM	HMA PAVEMENT	RATE OF APPLICATION	ESTIMATED THICKNESS	PERFORMANCE GRADE	COMMENTS
36A-T	Shared use Path, HMA	HMA, 36A	165#/SYD	1.5"	58-28	TOP COURSE (AWI = 220 MINIMUM)
13A-B	Shared use Path, HMA	HMA, 13A	220#/SYD	2.0"	58-28	BASE COURSE
HA	HMA Approach	HMA, 13A	2 LIFTS 275#/SYD	5.0"	58-28	TOP AND BASE COURSES
	Hand Patching	HMA, 13A	3 LIFTS 220#/SYD	6.0"	58-28	PAVEMENT REPAIRS AT CURB OPENINGS
	HMA BOND COAT	-	0.05-0.15 GAL	-	-	NOT A PAY ITEM; FOR INFORMATION ONLY
AIR VOIDS FOR 36A HMA MIX SHALL BE LIMITED TO 3.0%						
AIR VOIDS FOR 13A HMA MIX SHALL BE LIMITED TO 3.0%						
RAP SHALL BE LIMITED TO TIER 1 DESIGN (17% RAP BY BINDER WEIGHT) FOR ALL MIXES						

PLAN DATE: SEPTEMBER 2019
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SCALE: NOT TO SCALE

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IOSCO EXPLORATION TRAIL**

TYPICAL CROSS SECTIONS SHEET



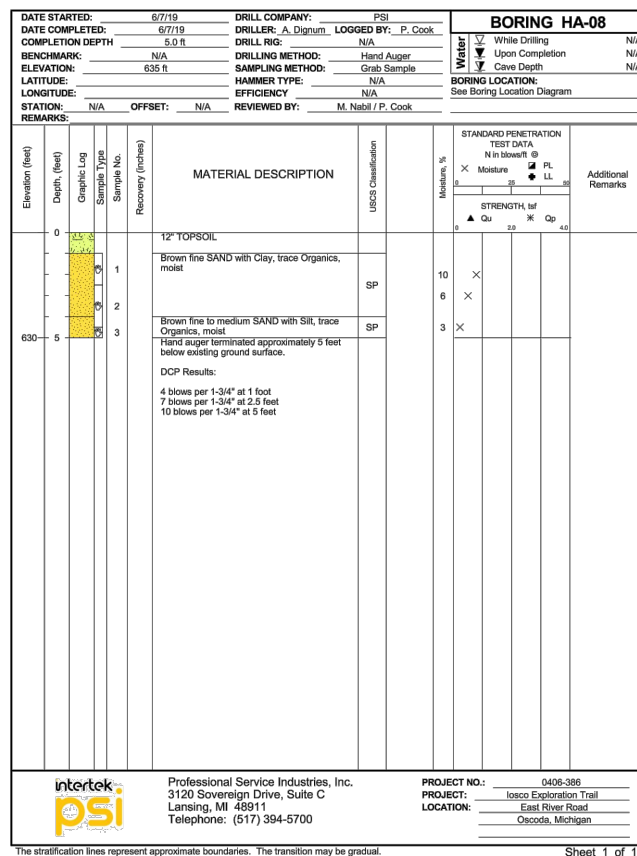
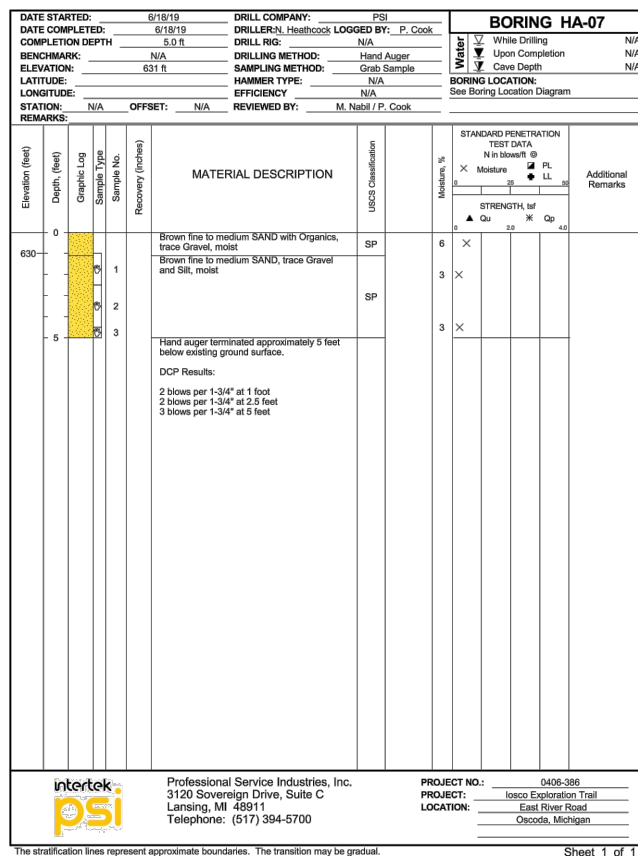
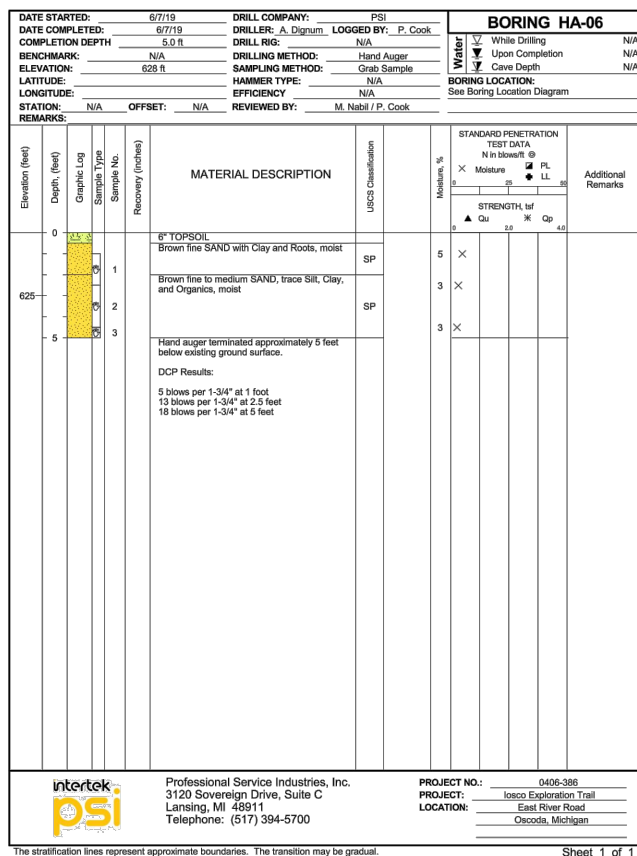
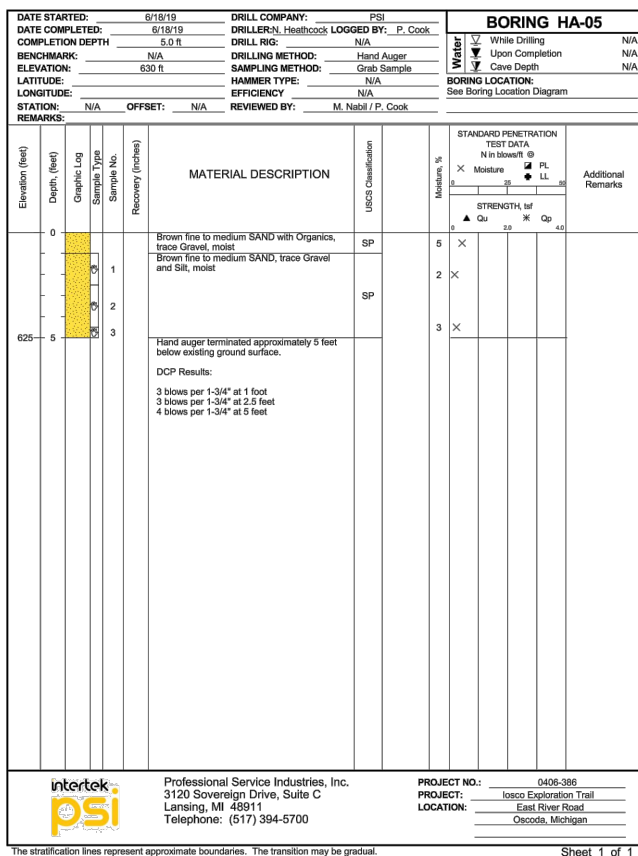
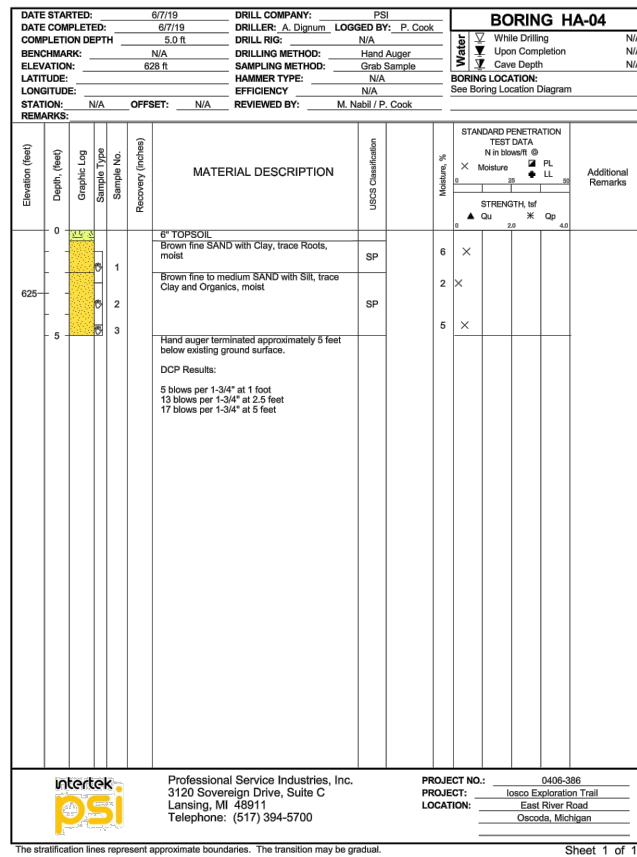
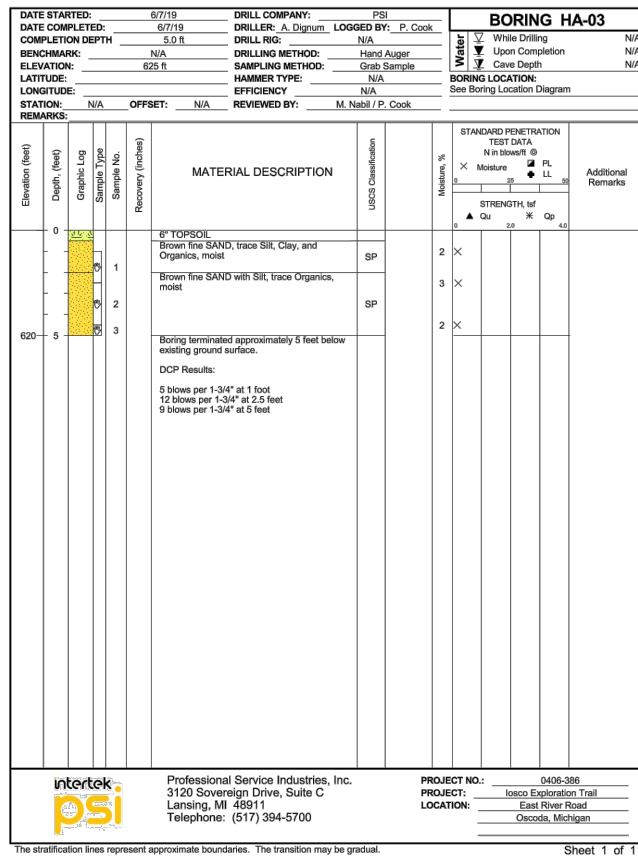
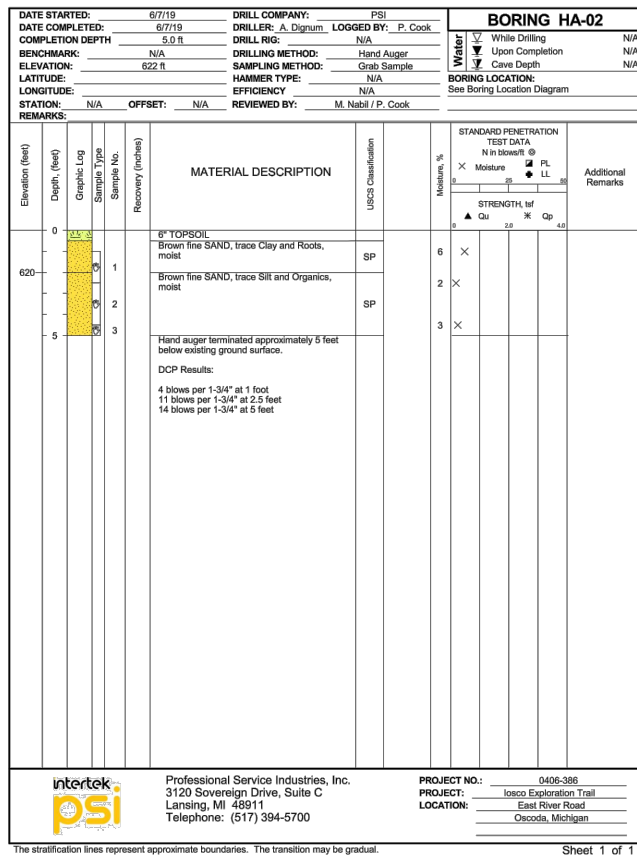
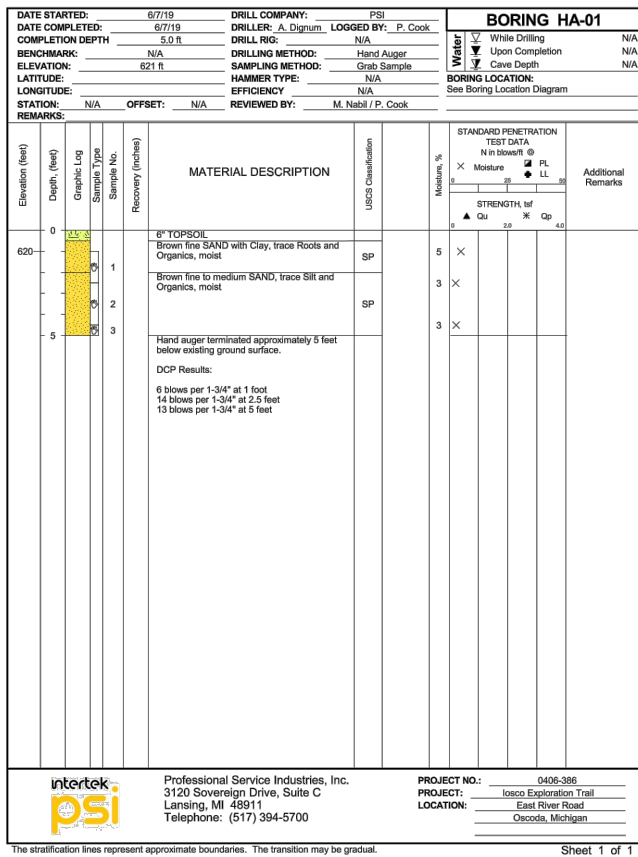
PLAN SUBMITTALS AND CHANGES

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8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____

SHT# 14 OF 46
JOB No: 19C0114

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PLAN DATE: SEPTEMBER 2019
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 REVISOR: TCL
 SCALE: NOT TO SCALE

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PREPARED FOR
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IOSCO EXPLORATION TRAIL
 SOIL BORING LOGS

REV: _____
 SHT# 15 of 46
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Know what's below.
 Call before you dig.

PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

DATE STARTED: 6/7/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/7/19 DRILLER: A. Dignum LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 637 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-09

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0.5				6" TOPSOIL				
0	1				Brown fine to medium SAND, trace Clay and Organics, moist	SP	4	X	
0	2				Brown fine to coarse SAND, trace Gravel and Organics, moist	SP	5	X	
0	3				Hand auger terminated approximately 5 feet below existing ground surface.		2	X	

intertek Professional Service Industries, Inc. PROJECT NO.: 0406-386
 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1

DATE STARTED: 6/18/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/18/19 DRILLER: N. Heathcock LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 615 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-10

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0				Brown fine to medium SAND with Organics, trace Gravel, moist	SP	3	X	
0	1				Brown fine to medium SAND, trace Gravel and Silt, moist	SP	3	X	
0	2								
0	3				Hand auger terminated approximately 5 feet below existing ground surface.		2	X	

intertek Professional Service Industries, Inc. PROJECT NO.: 0406-386
 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1

DATE STARTED: 6/7/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/7/19 DRILLER: A. Dignum LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 640 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-11

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0.5				6" TOPSOIL				
0	1				Brown fine SAND with Clay, trace Organics, moist	SP	5	X	
0	2				Brown fine SAND with Silt and Roots, moist	SP	5	X	
0	3				Brown fine SAND with Silt, trace Organics, moist	SP	2	X	

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 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1

DATE STARTED: 6/18/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/18/19 DRILLER: N. Heathcock LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 642 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-12

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0				Brown fine to medium SAND with Organics, trace Gravel, moist	SP	6	X	
0	1				Brown fine to medium SAND, trace Gravel and Silt, moist	SP	3	X	
0	2								
0	3				Hand auger terminated approximately 5 feet below existing ground surface.		5	X	

intertek Professional Service Industries, Inc. PROJECT NO.: 0406-386
 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1

DATE STARTED: 6/18/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/18/19 DRILLER: N. Heathcock LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 644 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-13

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0				Brown fine to medium SAND with Organics, trace Gravel, moist	SP	6	X	
0	1				Brown fine to medium SAND, trace Gravel and Silt, moist	SP	3	X	
0	2								
0	3				Hand auger terminated approximately 5 feet below existing ground surface.		5	X	

intertek Professional Service Industries, Inc. PROJECT NO.: 0406-386
 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1

DATE STARTED: 6/18/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/18/19 DRILLER: N. Heathcock LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 646 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-14

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0				Brown fine to medium SAND with Organics, trace Gravel, moist	SP	6	X	
0	1				Brown fine to medium SAND, trace Gravel and Silt, moist	SP	4	X	
0	2								
0	3				Hand auger terminated approximately 5 feet below existing ground surface.		4	X	

intertek Professional Service Industries, Inc. PROJECT NO.: 0406-386
 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1

DATE STARTED: 6/18/19 DRILL COMPANY: PSI
 DATE COMPLETED: 6/18/19 DRILLER: N. Heathcock LOGGED BY: P. Cook
 COMPLETION DEPTH: 5.0 ft DRILL RIG: N/A
 BENCHMARK: N/A DRILLING METHOD: Hand Auger
 ELEVATION: 647 ft SAMPLING METHOD: Grab Sample
 LATITUDE: N/A HAMMER TYPE: N/A
 LONGITUDE: N/A EFFICIENCY: N/A
 STATION: N/A OFFSET: N/A REVIEWED BY: M. Nabli / P. Cook

BORING HA-15

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	STANDARD PENETRATION TEST DATA		Additional Remarks
							N in blows/ft	Moisture %	
0	0				Brown fine to medium SAND with Organics, trace Gravel, moist	SP	5	X	
0	1				Brown fine to medium SAND, trace Gravel and Silt, moist	SP	3	X	
0	2								
0	3				Hand auger terminated approximately 5 feet below existing ground surface.		3	X	

intertek Professional Service Industries, Inc. PROJECT NO.: 0406-386
 psi 3120 Sovereign Drive, Suite C PROJECT: Iosco Exploration Trail
 Lansing, MI 48911 LOCATION: East River Road
 Telephone: (517) 394-5700 Oscoda, Michigan

Sheet 1 of 1



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PLAN SUBMITTALS AND CHANGES

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV:

SHT# 16 OF 46
JOB No: 19C0114

PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVISOR: TCL
 SCALE: NOT TO SCALE

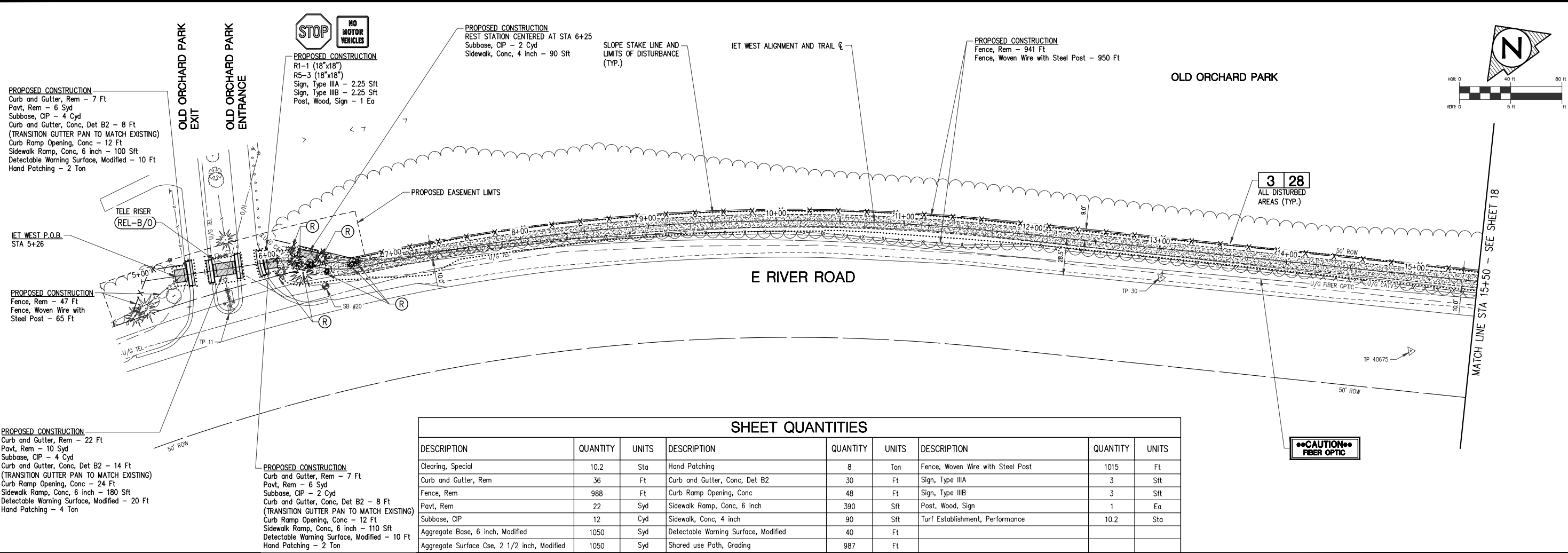
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CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL

SOIL BORING LOGS

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Flint, MI 48502



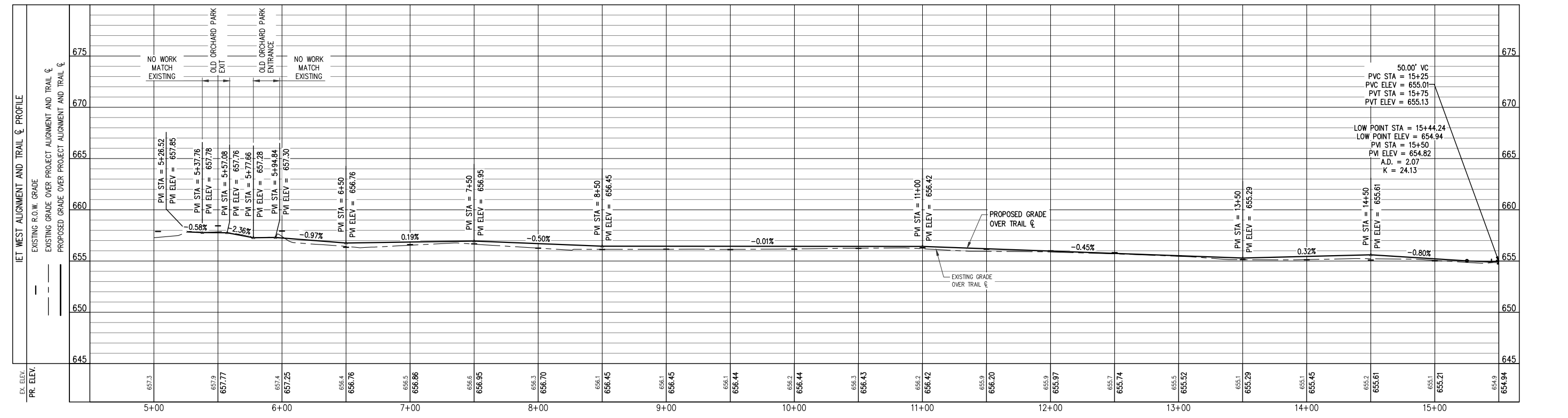
PROPOSED CONSTRUCTION
 Curb and Gutter, Rem - 7 Ft
 Pavt, Rem - 6 Syd
 Subbase, CIP - 4 Cyd
 Curb and Gutter, Conc, Det B2 - 8 Ft
 (TRANSITION GUTTER PAN TO MATCH EXISTING)
 Curb Ramp Opening, Conc - 12 Ft
 Sidewalk Ramp, Conc, 6 inch - 100 Sft
 Detectable Warning Surface, Modified - 10 Ft
 Hand Patching - 2 Ton

PROPOSED CONSTRUCTION
 Fence, Rem - 47 Ft
 Fence, Woven Wire with Steel Post - 65 Ft

PROPOSED CONSTRUCTION
 Curb and Gutter, Rem - 22 Ft
 Pavt, Rem - 10 Syd
 Subbase, CIP - 4 Cyd
 Curb and Gutter, Conc, Det B2 - 14 Ft
 (TRANSITION GUTTER PAN TO MATCH EXISTING)
 Curb Ramp Opening, Conc - 24 Ft
 Sidewalk Ramp, Conc, 6 inch - 180 Sft
 Detectable Warning Surface, Modified - 20 Ft
 Hand Patching - 4 Ton

PROPOSED CONSTRUCTION
 Curb and Gutter, Rem - 7 Ft
 Pavt, Rem - 6 Syd
 Subbase, CIP - 2 Cyd
 Curb and Gutter, Conc, Det B2 - 8 Ft
 (TRANSITION GUTTER PAN TO MATCH EXISTING)
 Curb Ramp Opening, Conc - 12 Ft
 Sidewalk Ramp, Conc, 6 inch - 110 Sft
 Detectable Warning Surface, Modified - 10 Ft
 Hand Patching - 2 Ton

SHEET QUANTITIES								
DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.2	Sta	Hand Patching	8	Ton	Fence, Woven Wire with Steel Post	1015	Ft
Curb and Gutter, Rem	36	Ft	Curb and Gutter, Conc, Det B2	30	Ft	Sign, Type IIIA	3	Sft
Fence, Rem	988	Ft	Curb Ramp Opening, Conc	48	Ft	Sign, Type IIIB	3	Sft
Pavt, Rem	22	Syd	Sidewalk Ramp, Conc, 6 inch	390	Sft	Post, Wood, Sign	1	Ea
Subbase, CIP	12	Cyd	Sidewalk, Conc, 4 inch	90	Sft	Turf Establishment, Performance	10.2	Sta
Aggregate Base, 6 inch, Modified	1050	Syd	Detectable Warning Surface, Modified	40	Ft			
Aggregate Surface Cse, 2 1/2 inch, Modified	1050	Syd	Shared use Path, Grading	987	Ft			



EX. ELEV.
 PR. ELEV.



PLAN SUBMITTALS AND CHANGES	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

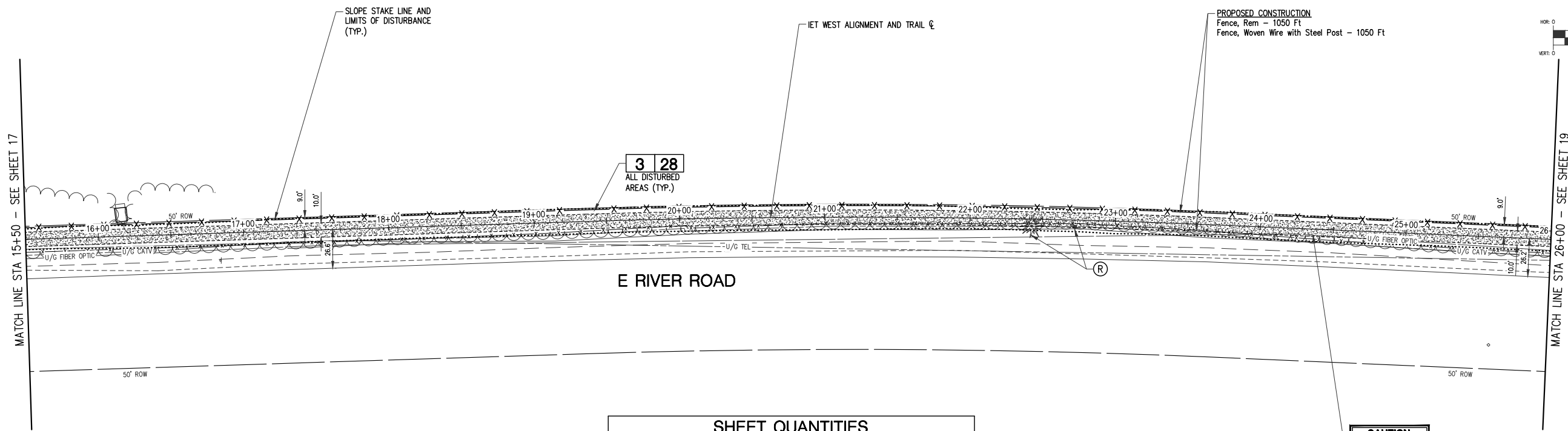
PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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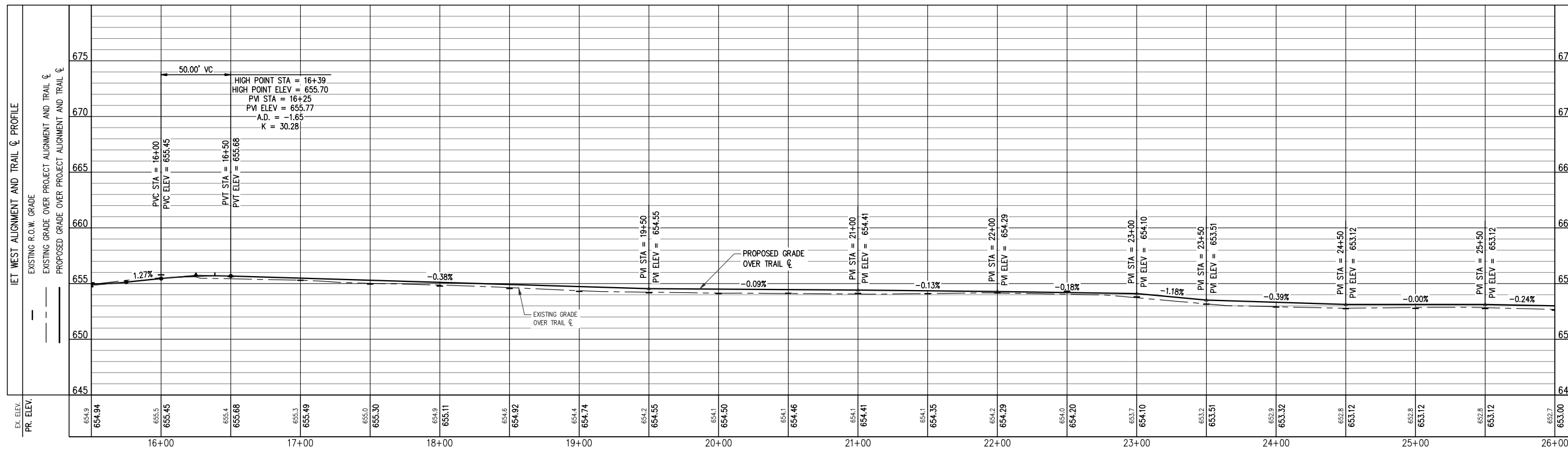
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CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
 STA 5+26 (P.O.B.) TO STA 15+50
 PLAN AND PROFILE SHEET

REV: _____
 SHT# 17 OF 46
 JOB No: 19C0114

OLD ORCHARD PARK



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Fence, Rem	1050	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Fence, Woven Wire with Steel Post	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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IOSCO EXPLORATION TRAIL
 STA 15+50 TO STA 26+00
 PLAN AND PROFILE SHEET

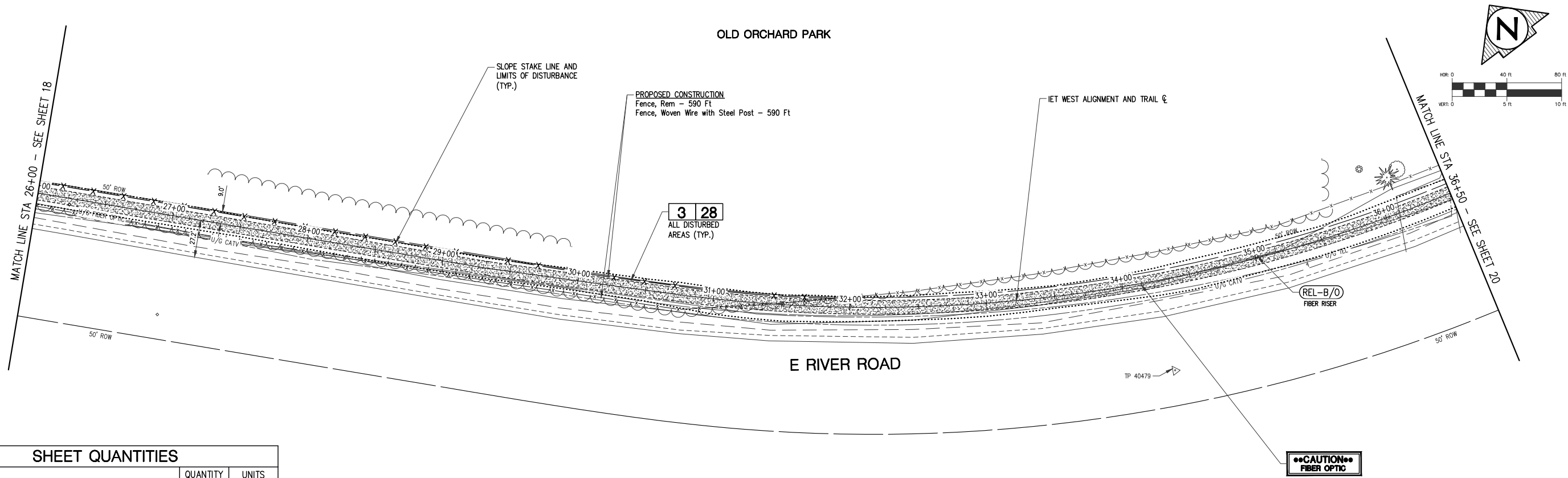


PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 18 OF 46
 JOB No: 19C0114

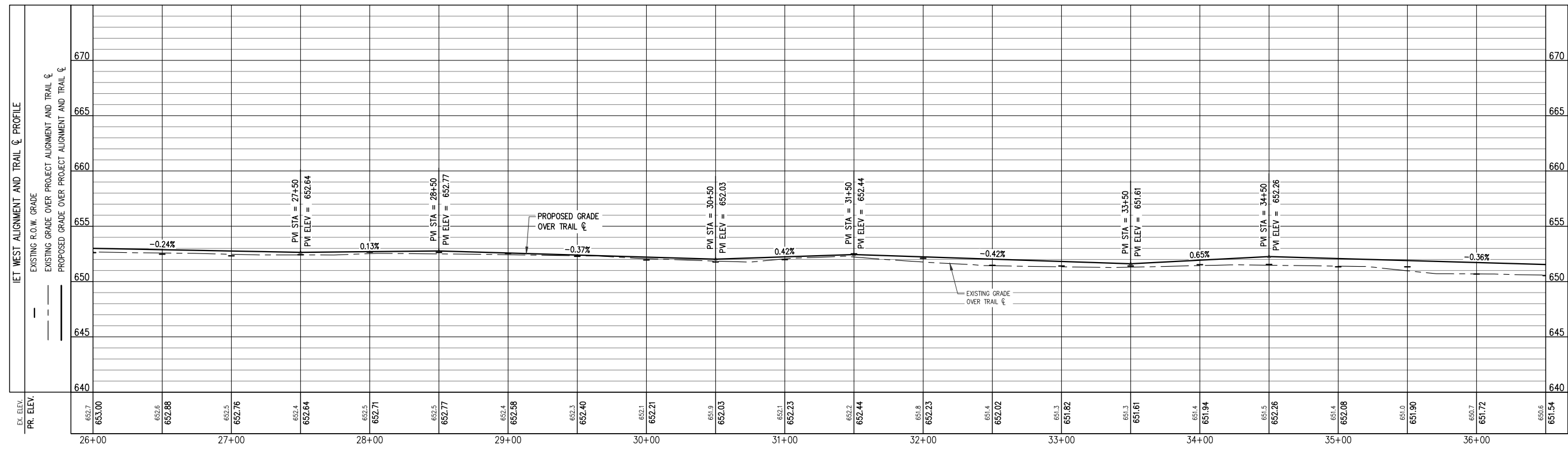
Flint, MI 48502
 PROJECT: 1903014 (04) Construction Drawings (S) 1903014-PLAN_PROFILE-1.dwg
 PLOTTED: 9/18/2019 3:08 PM

OLD ORCHARD PARK



SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Fence, Rem	590	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Fence, Woven Wire with Steel Post	590	Ft
Turf Establishment, Performance	10.5	Sta



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PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
 STA 26+00 TO STA 36+50
 PLAN AND PROFILE SHEET

PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

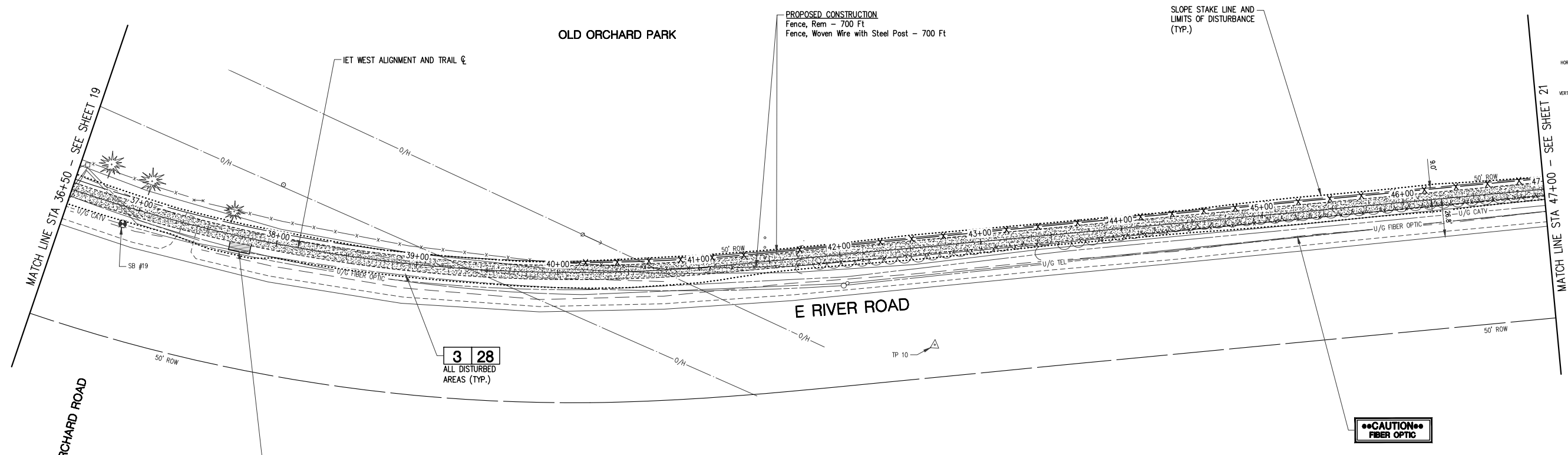
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 540 S. SAGINAW ST., SUITE 200
 FLINT, MI 48502
 WWW.ROWEPSC.COM



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PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

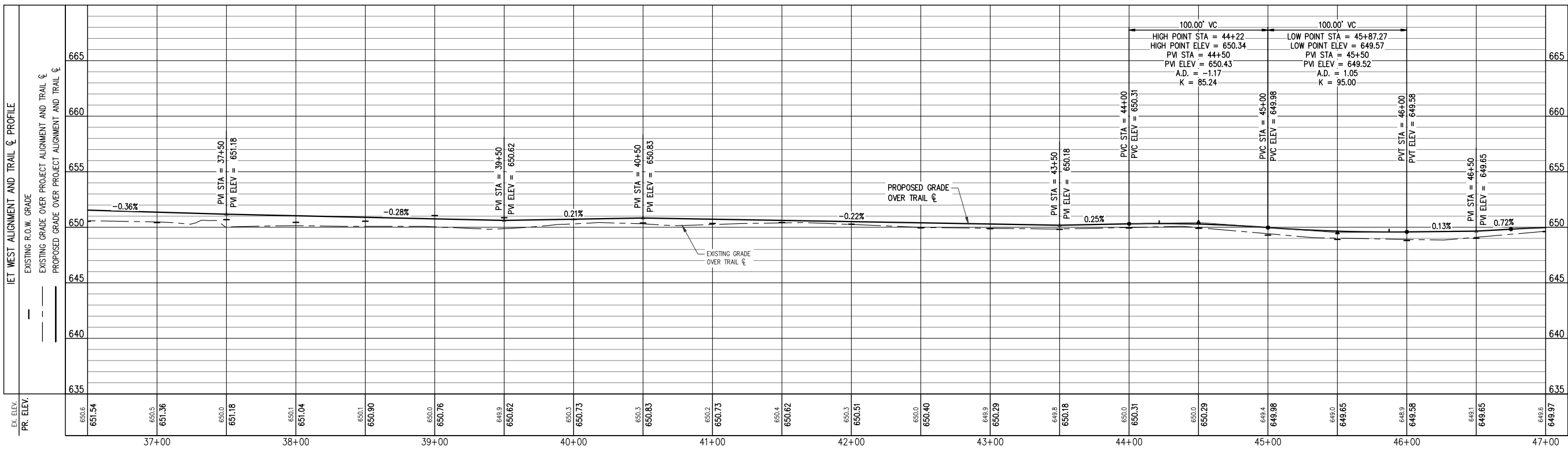
REV: _____
 SHT# 19 OF 46
 JOB No: 19C0114



3 28
ALL DISTURBED
AREAS (TYP.)

CAUTION
FIBER OPTIC

SHEET QUANTITIES					
DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta	Sidewalk, Conc, 4 inch	90	Sft
Fence, Rem	700	Ft	Shared use Path, Grading	1050	Ft
Subbase, CIP	2	Cyd	Fence, Woven Wire with Steel Post	700	Ft
Aggregate Base, 6 inch, Modified	1170	Syd	Turf Establishment, Performance	10.5	Sta
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd			



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PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
STA 36+50 TO STA 47+00
PLAN AND PROFILE SHEET

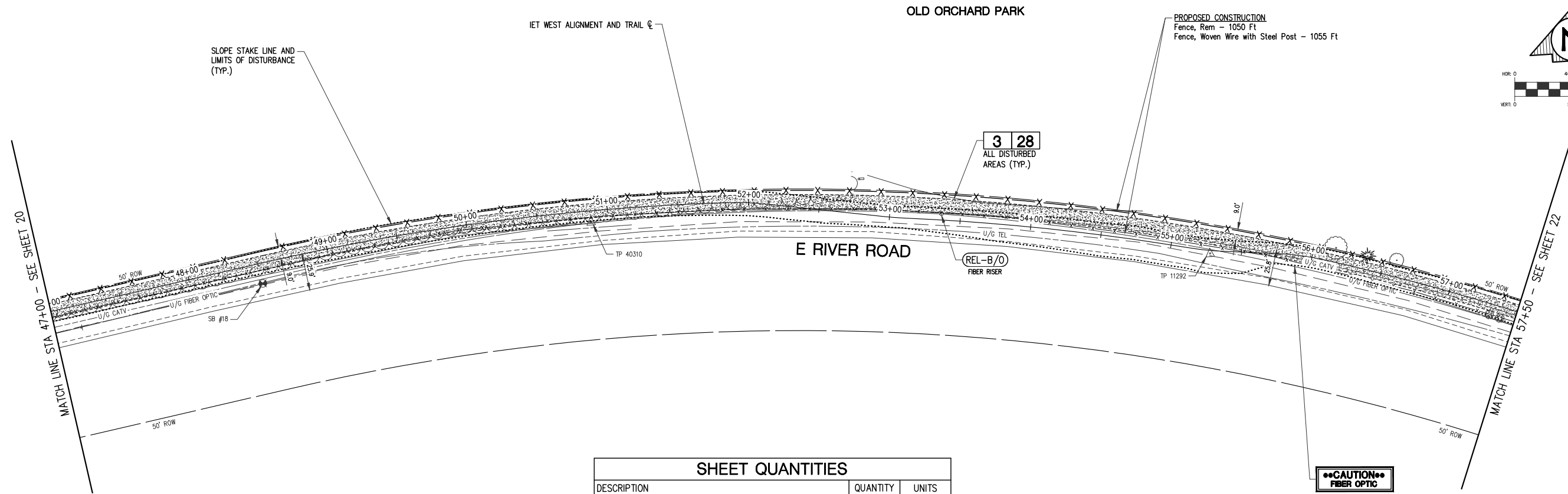
PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

REV: _____
SHT# 20 OF 46
JOB No: 19C0114



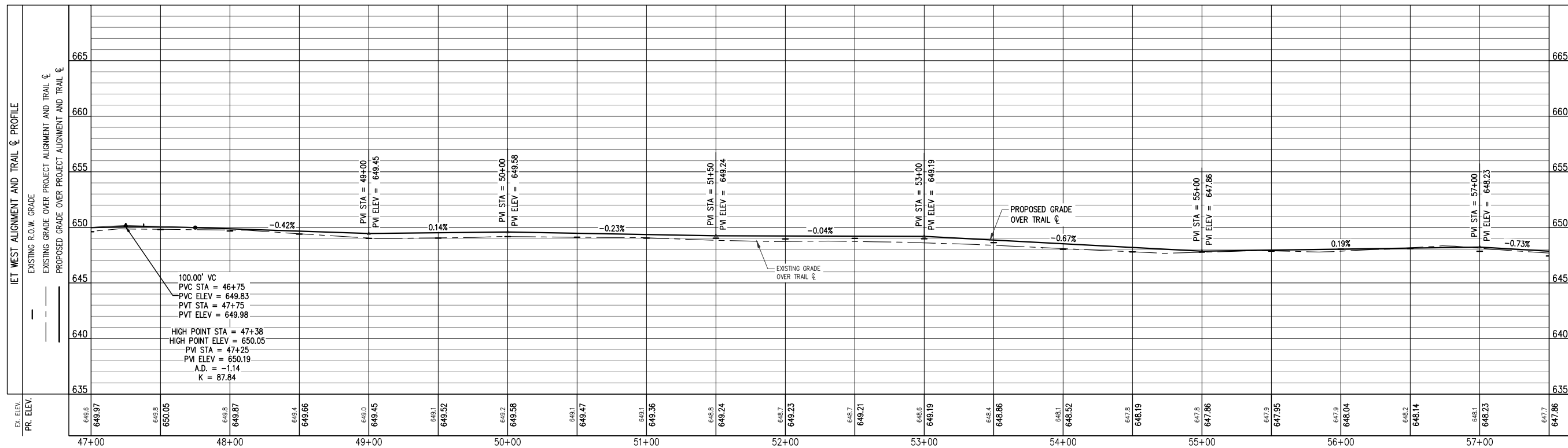
PLAN SUBMITTALS AND CHANGES	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

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SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Fence, Rem	1050	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Fence, Woven Wire with Steel Post	1055	Ft
Turf Establishment, Performance	10.5	Sta

CAUTION
FIBER OPTIC



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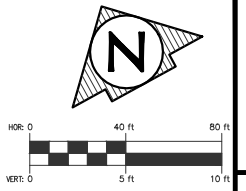
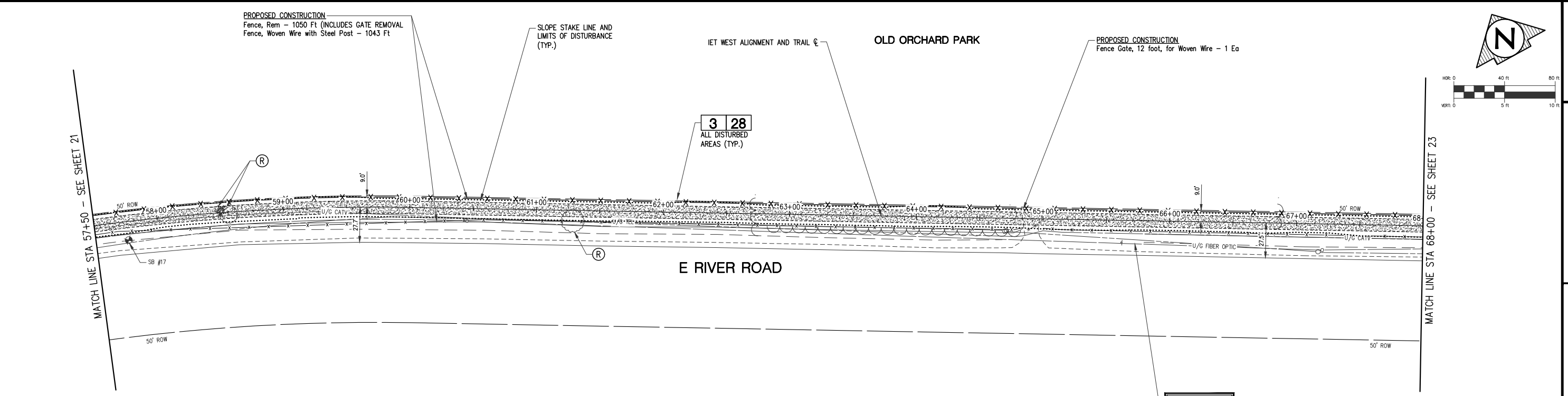
PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
STA 47+00 TO STA 57+50
PLAN AND PROFILE SHEET

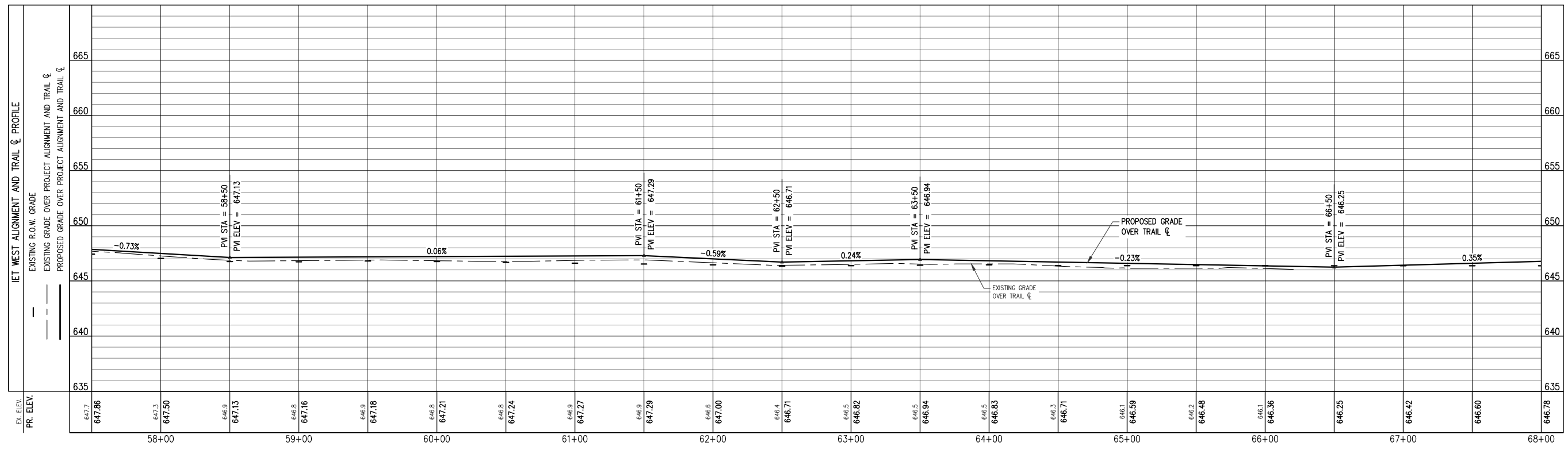


PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
SHT# 21 OF 46
JOB No: 19C0114



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Fence, Rem	1050	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Fence, Woven Wire with Steel Post	1043	Ft
Fence Gate, 12 foot, for Woven Wire	1	Ea
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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IOSCO EXPLORATION TRAIL
 STA 57+50 TO STA 68+00
 PLAN AND PROFILE SHEET

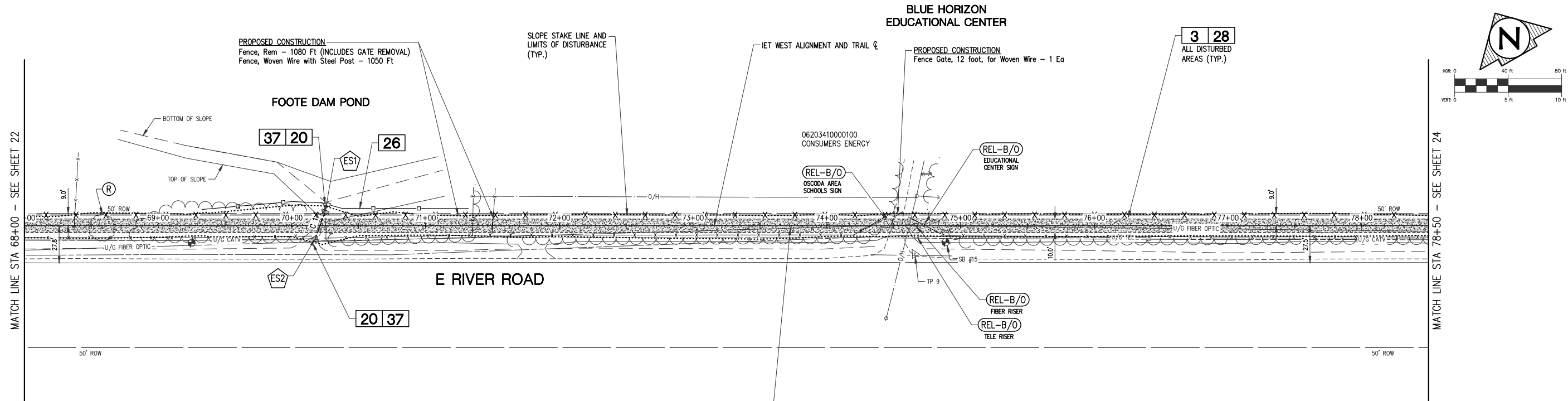
PLANNING AND CONSTRUCTION DIVISION

REV: _____
 SHT# 22 OF 46
 JOB No: 19C0114

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PLAN SUBMITTALS AND CHANGES
 PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**
 DATE DESCRIPTION
 8/5/19 TEAM REVIEW
 9-19-19 90% CLIENT SUBMITTAL

PROJECT: 1903014 (Jmg) Construction Drawings (SI=1920114-PLAN_PROFILE-1.dwg)
 PLOTED: 9/18/2019 3:10 PM



PROPOSED STORM SEWER END SECTION TABLE

STRUCT NO.	DIA.	PAY ITEM	END OF PIPE INVERT	END OF PIPE STATION	END OF PIPE OFFSET
ES1	12"	Culv End Sect, Metal	12" 643.38	70+24.6	9.4 L
ES2	12"	Culv End Sect, Metal	12" 643.50	70+17.7	9.4 R

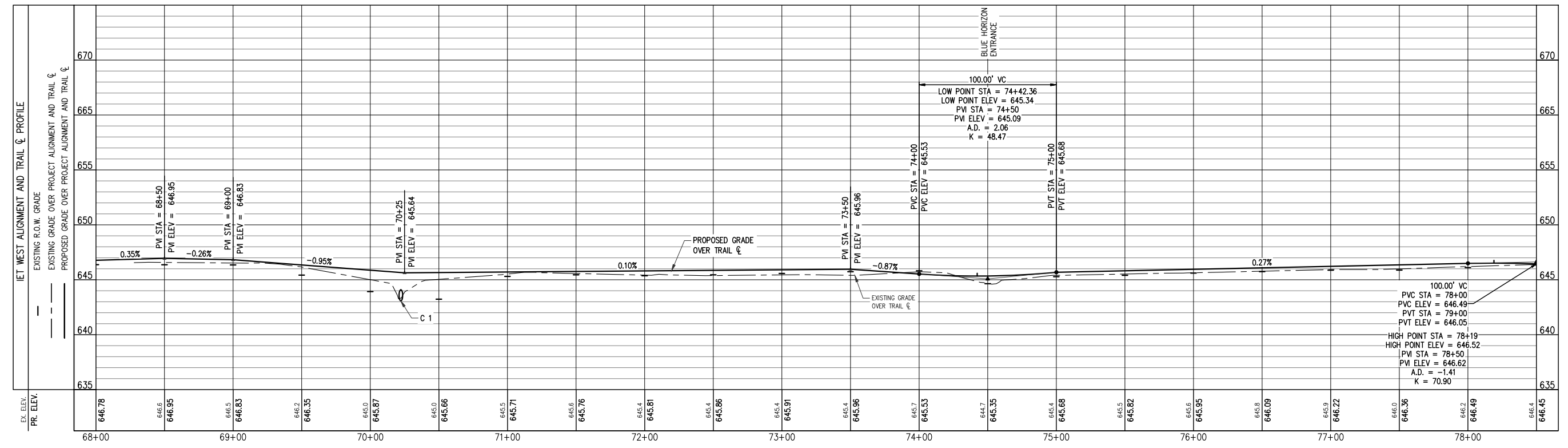
PROPOSED STORM SEWER PIPE TABLE

PIPE NUMBER	DIAMETER	PAY ITEM	TOTAL LENGTH	SLOPE
C 1	12"	Culv, Cl F, CSP, _inch	20'	0.60%

CAUTION
FIBER OPTIC

SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta	Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Fence, Rem	1080	Ft	Culv End Sect, Metal, 12 inch	2	Ea
Ditch Cleanout	1	Sta	Culv, Cl F, CSP, 12 inch	20	Ft
Erosion Control, Check Dam, Stone	20	Ft	Shared use Path, Grading	1050	Ft
Erosion Control, Sediment Trap	2	Ea	Fence, Woven Wire with Steel Post	1050	Ft
Erosion Control, Silt Fence	200	Ft	Fence Gate, 12 foot, for Woven Wire	1	Ea
Aggregate Base, 6 inch, Modified	1170	Syd	Turf Establishment, Performance	10.5	Sta



PLAN SUBMITTALS AND CHANGES

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL



ROWE PROFESSIONAL SERVICES COMPANY

PREPARED FOR: CHARTER TOWNSHIP OF OSCODA, IOSCO EXPLORATION TRAIL

PLAN AND PROFILE SHEET STA 68+00 TO STA 78+50

PLAN DATE: SEPTEMBER 2019

PROJECT MGR: RAF

REVIEWER: TCL

SCALE: 1" = 40' HZ; 1" = 5' VT

O: (810) 341-7500

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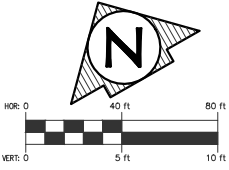
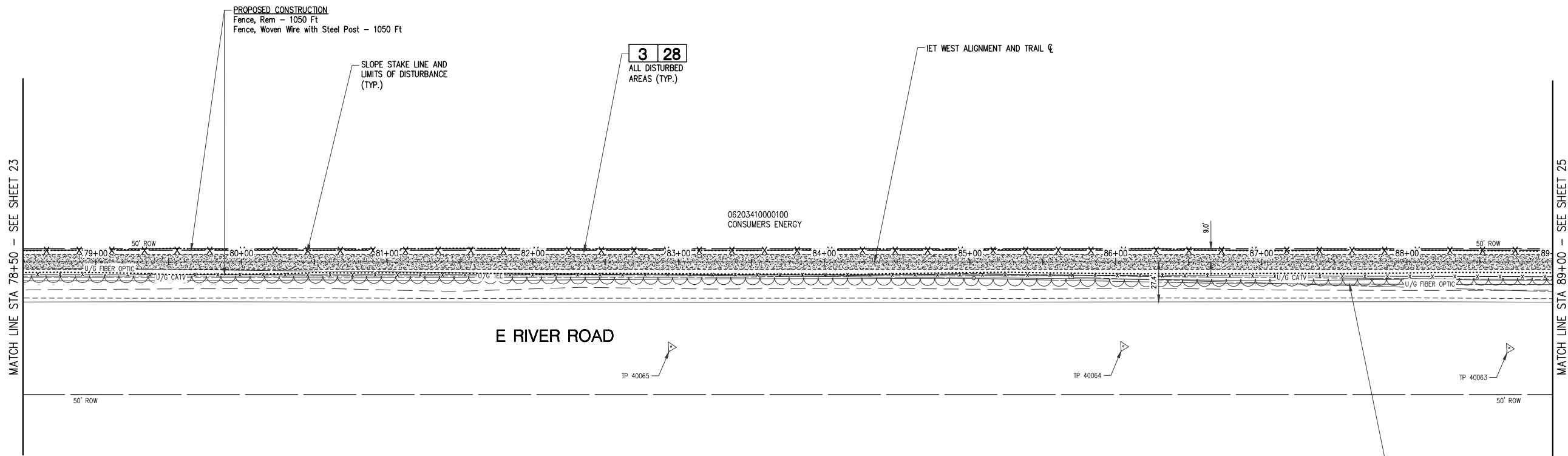
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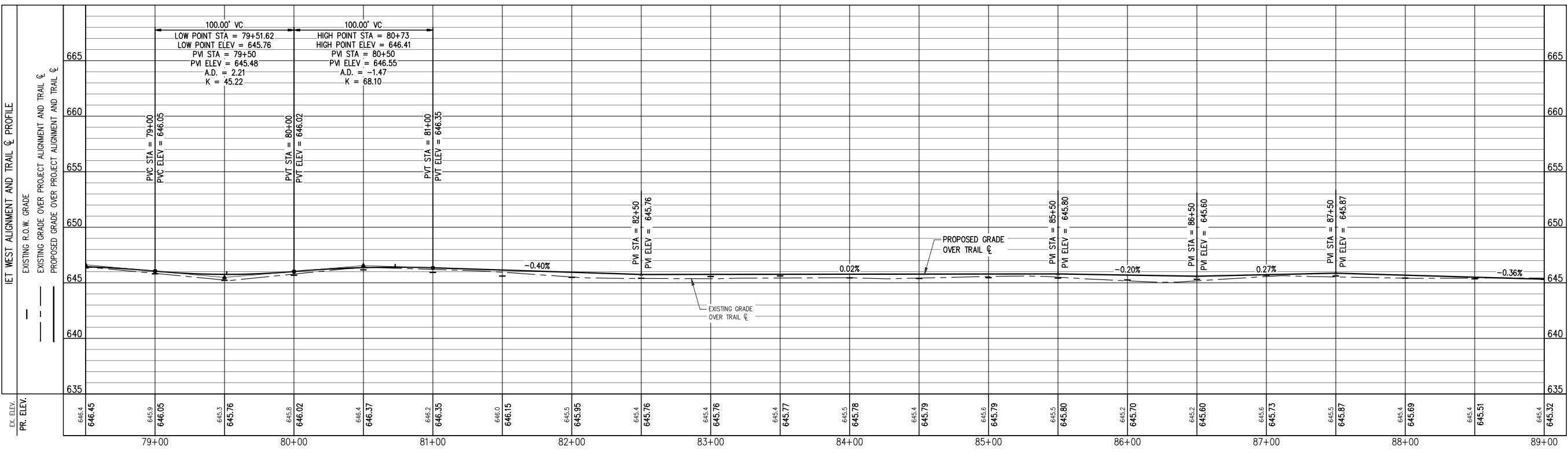
REV: _____

SHT# 23 OF 46

JOB No: 19C0114



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Fence, Rem	1050	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Fence, Woven Wire with Steel Post	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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IOSCO EXPLORATION TRAIL
 STA 78+50 TO STA 89+00
 PLAN AND PROFILE SHEET



PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 24 OF 46
 JOB No: 19C0114

PROPOSED CONSTRUCTION
Fence, Rem - 470 Ft
Fence, Woven Wire with Steel Post - 480 Ft

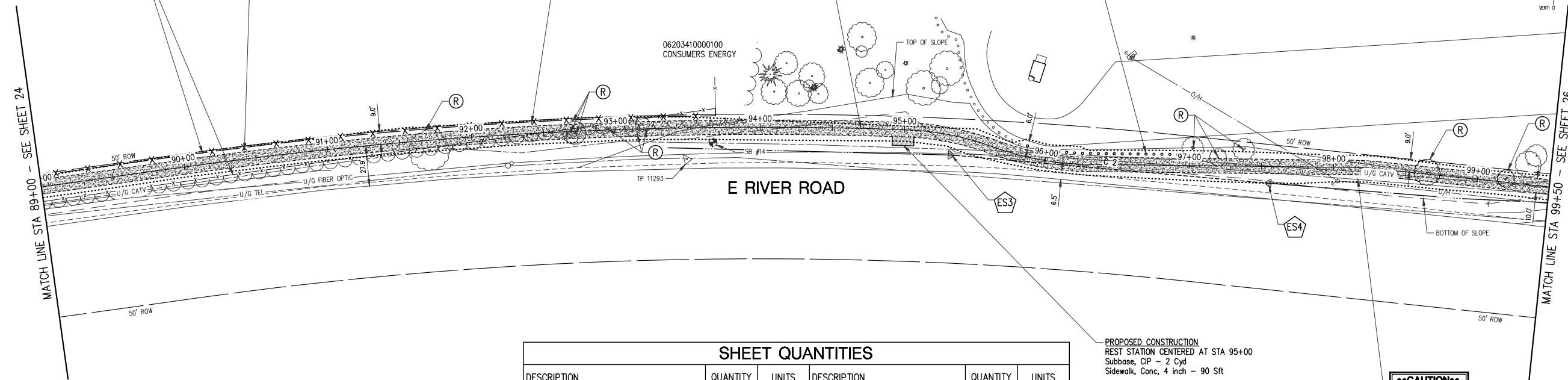
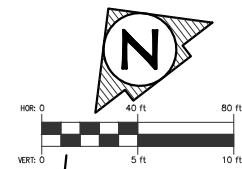
SLOPE STAKE LINE AND
LIMITS OF DISTURBANCE
(TYP.)

3 28
ALL DISTURBED
AREAS (TYP.)

LET WEST ALIGNMENT AND TRAIL ☐

PROPOSED CONSTRUCTION
Post, Wood Guard - 20 Ea

FOOTE SITE PARK



PROPOSED STORM SEWER END SECTION TABLE

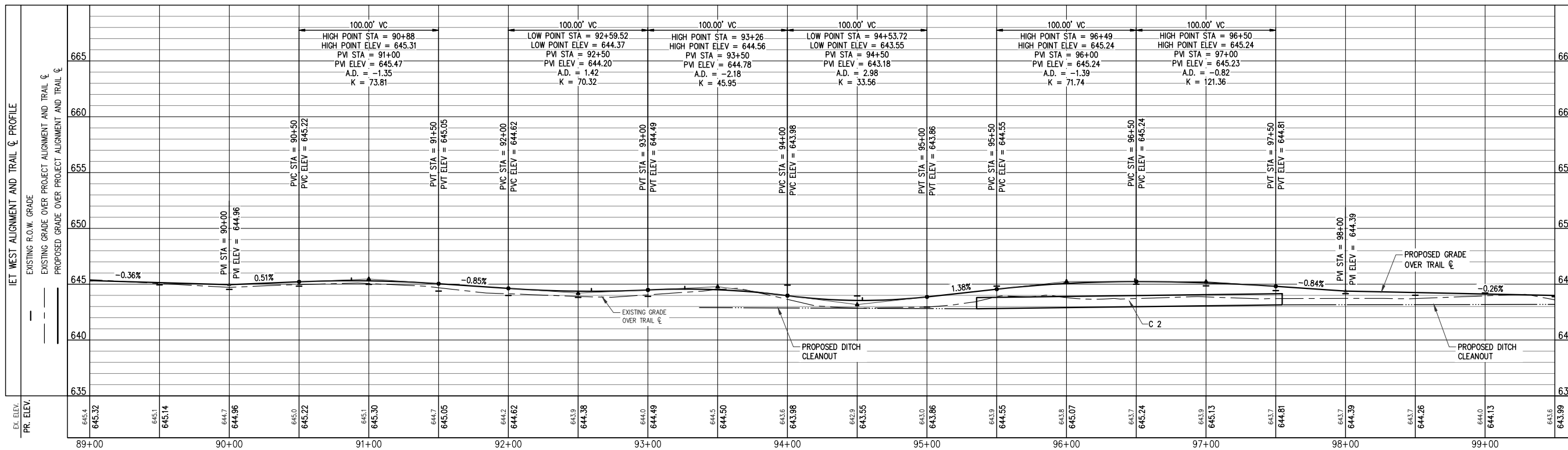
STRUCT NO.	DIA.	PAY ITEM	END OF PIPE INVERT	END OF PIPE STATION	END OF PIPE OFFSET
ES3	12"	Culv End Sect, Metal	12" 642.80	95+35.6	13.5 R
ES4	12"	Culv End Sect, Metal	12" 643.15	97+54.6	11.6 R

PROPOSED STORM SEWER PIPE TABLE

PIPE NUMBER	DIAMETER	PAY ITEM	TOTAL LENGTH	SLOPE
C 2	12"	Culv, Cl F, _ inch	220'	0.16%

SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta	Culv End Sect, Metal, 12 inch	2	Ea
Fence, Rem	470	Ft	Culv, Cl F, CSP, 12 inch	220	Ft
Ditch Cleanout	4	Sta	Sidewalk, Conc, 4 inch	90	Sft
Erosion Control, Check Dam, Stone	20	Ft	Shared use Path, Grading	1050	Ft
Erosion Control, Sediment Trap	2	Ea	Post, Wood Guard	20	Ea
Subbase, CIP	2	Cyd	Fence, Woven Wire with Steel Post	480	Ft
Aggregate Base, 6 inch, Modified	1170	Syd	Turf Establishment, Performance	10.5	Sta
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd			



PLAN SUBMITTALS AND CHANGES

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
SHT# 25 OF 46
JOB No: 19C0114

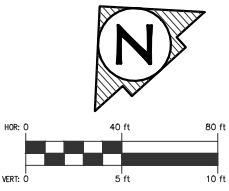
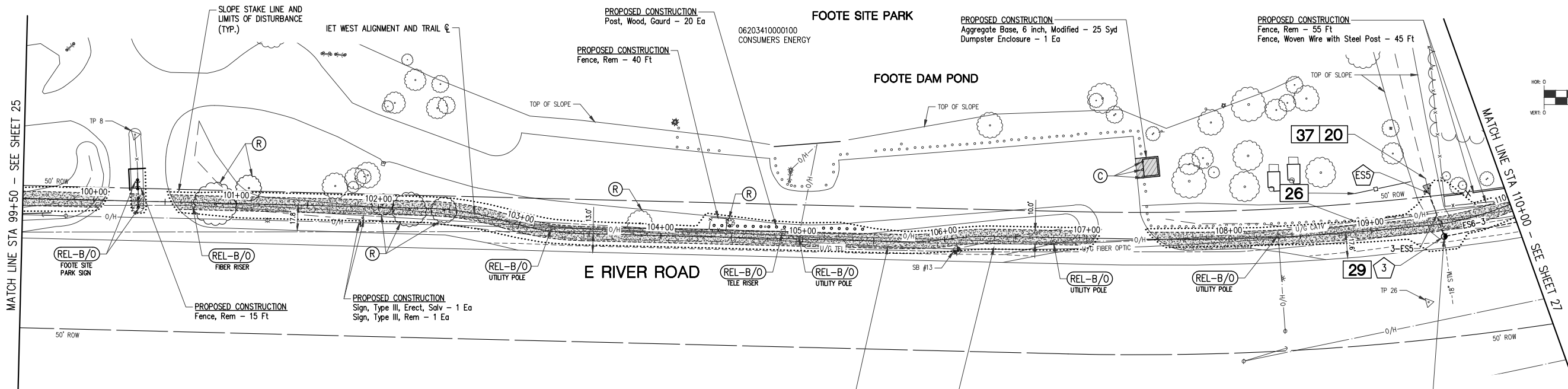
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Flint, MI 48502

PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
STA 89+00 TO STA 99+50
PLAN AND PROFILE SHEET

Flint, MI 48502



PROPOSED STORM SEWER STRUCTURE TABLE

STRUCT NO.	DIA.	COVER TYPE	RIM ELEVATION	INVERT	STATION	OFFSET
3	48"	G	RIM=641.63	18" 639.30 NE (PR) 12" 639.30 SE (PR) 18" 639.30 SW (EX)	109+50.2	9.2 R

PROPOSED STORM SEWER PIPE TABLE

PIPE NUMBER	DIAMETER	PAY ITEM	TOTAL LENGTH	SLOPE	TRENCH DETAIL A (T.D. A)	TRENCH DETAIL B (T.D. B)
3-ES5	18"	Sewer, Cl A, 18 inch, Tr Det	32'	0.63%	12'	20'
ES6-3	12"	Sewer, Cl A, 12 inch, Tr Det	96'	0.73%	96'	0'

PROPOSED STORM SEWER END SECTION TABLE

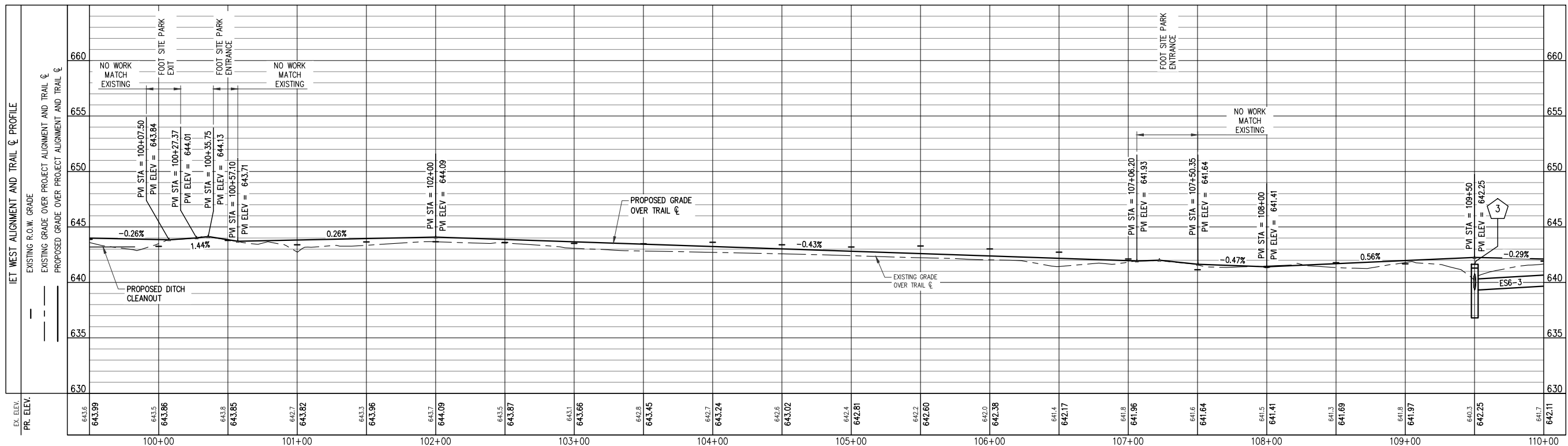
STRUCT NO.	DIA.	PAY ITEM	END OF PIPE INVERT	END OF PIPE STATION	END OF PIPE OFFSET
ES5	18"	Culv End Sect, Conc	18" 639.10	109+43.9	22.2 L

CAUTION
FIBER OPTIC

28 3
ALL DISTURBED AREAS (TYP.)

SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	9.7	Sta	Aggregate Base, 6 inch, Modified	1100	Syd	Dr Structure, 48 inch dia	1	Ea
Sewer, Rem, Less than 24 inch	8	Ft	Aggregate Surface Cse, 2 1/2 inch, Modified	1075	Syd	Shared use Path, Grading	967	Ft
Fence, Rem	110	Ft	Culv End Sect, Conc, 18 inch	1	Ea	Post, Wood Guard	20	Ea
Ditch Cleanout	1	Sta	Sewer, Cl A, 12 inch, Tr Det A	96	Ft	Fence, Woven Wire with Steel Post	45	Ft
Erosion Control, Check Dam, Stone	25	Ft	Sewer, Cl A, 18 inch, Tr Det A	12	Ft	Sign, Type III, Erect, Salv	1	Ea
Erosion Control, Inlet Protection, Fabric Drop	1	Ea	Sewer, Cl A, 18 inch, Tr Det B	20	Ft	Sign, Type III, Rem	1	Ea
Erosion Control, Sediment Trap	2	Ea	Sewer Tap, 18 inch	1	Ea	Turf Establishment, Performance	9.7	Sta
Erosion Control, Silt Fence	40	Ft	Dr Structure Cover, Type G	1	Ea	Dumpster Enclosure	1	Ea



PLAN SUBMITTALS AND CHANGES

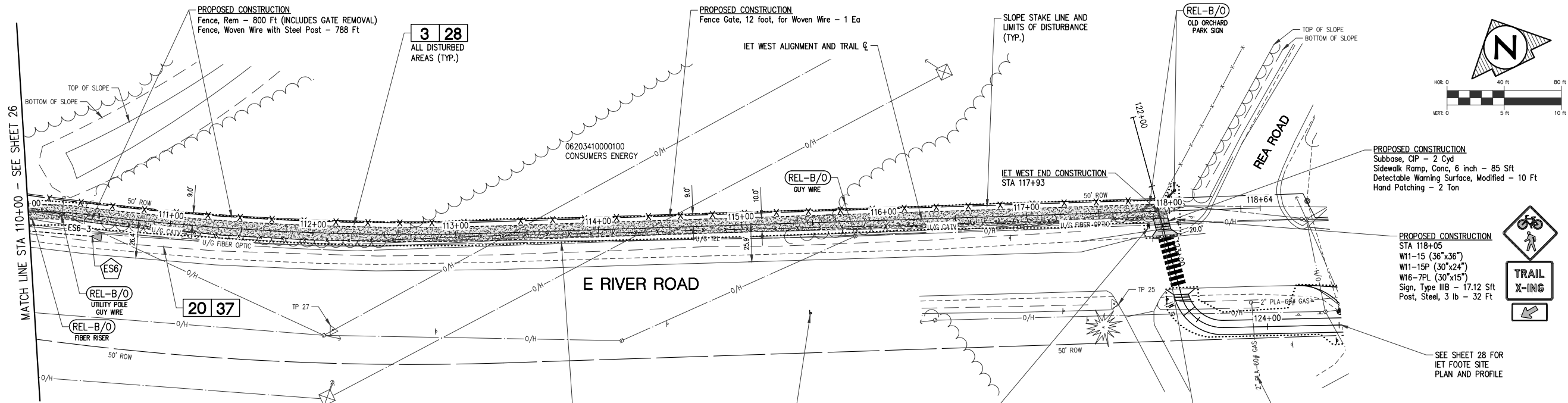
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

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**CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL**
STA 99+50 TO STA 110+00
PLAN AND PROFILE SHEET

PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

SHT# 26 OF 46
JOB No: 19C0114

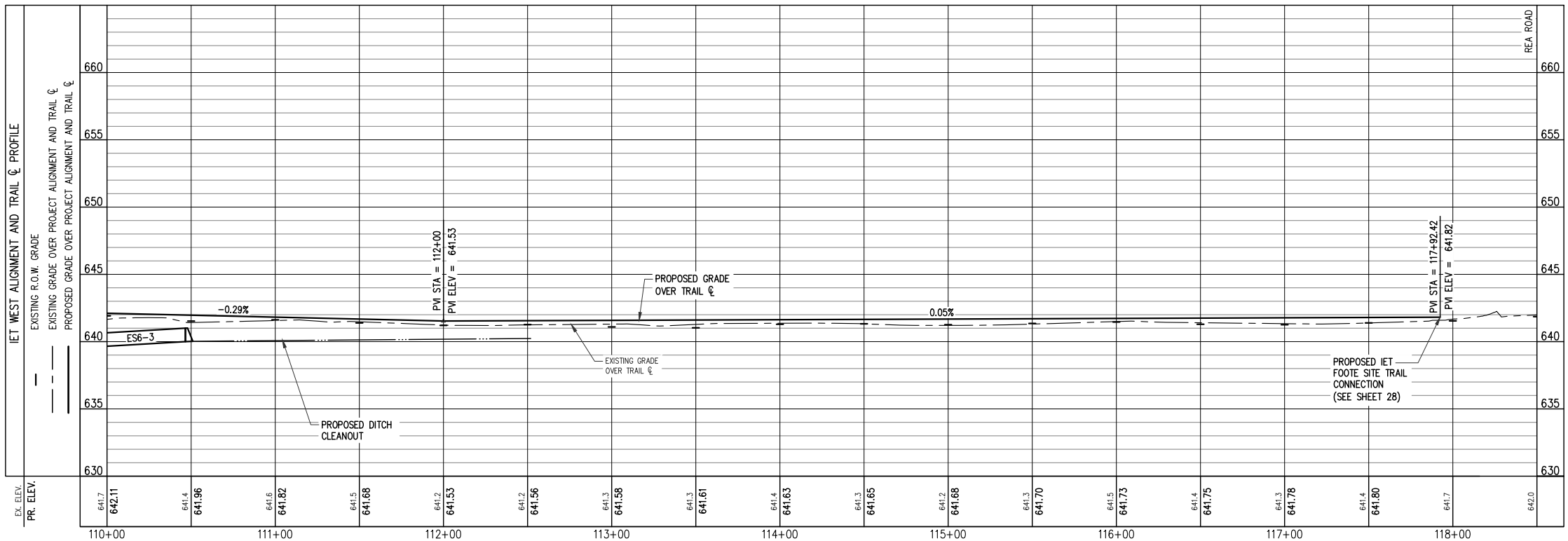


SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	7.9	Sta	Sidewalk Ramp, Conc, 6 inch	85	Sft
Fence, Rem	800	Ft	Detectable Warning Surface, Modified	10	Ft
Ditch Cleanout	2	Sta	Shored use Path, Grading	788	Ft
Erosion Control, Check Dam, Stone	10	Ft	Fence, Woven Wire with Steel Post	788	Ft
Erosion Control, Sediment Trap	1	Ea	Fence Gate, 12 foot, for Woven Wire	1	Ea
Subbase, CIP	2	Cyd	Post, Steel, 3 lb	62	Ft
Aggregate Base, 6 inch, Modified	875	Syd	Sign, Type IIIA	3	Sft
Aggregate Surface Cse, 2 1/2 inch, Modified	875	Syd	Sign, Type IIIB	33	Sft
Culv End Sect, Conc, 12 inch	1	Ea	Post, Wood, Sign	1	Ea
Hand Patching	2	Ton	Turf Establishment, Performance	7.9	Sta

PROPOSED STORM SEWER END SECTION TABLE

STRUCT NO.	DIA.	PAY ITEM	END OF PIPE INVERT	END OF PIPE STATION	END OF PIPE OFFSET
ES6	12"	Culv End Sect, Conc	12" 640.00	110+46.7	14.6 R



PLAN SUBMITTALS AND CHANGES

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
 STA 110+00 TO STA 117+93 (END CONSTRUCTION)
 PLAN AND PROFILE SHEET

PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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REV: _____
 SHT# 27 OF 46
 JOB No: 19C0114

PROPOSED STORM SEWER STRUCTURE TABLE						
STRUCT NO.	DIA.	COVER TYPE	RIM ELEVATION	INVERT	STATION	OFFSET
1	48"	G	RIM=641.68	12" 639.40 NW (PR)	124+79.6	16.3 L
2	48"	G	RIM=641.51	12" 639.00 SE (PR) 12" 638.92 N (EX)	124+50.9	9.4 L

PROPOSED STORM SEWER PIPE TABLE						
PIPE NUMBER	DIAMETER	PAY ITEM	TOTAL LENGTH	SLOPE	TRENCH DETAIL A (T.D. A)	TRENCH DETAIL B (T.D. B)
1-2	12"	Sewer, Cl A, 12 inch, Tr Det	40'	1.01%	0'	40'

EX STRUCTURE INVENTORIES

EX 11448
RIM = 641.49
12" NW = 639.45

EX 31766
RIM = 641.80
12" S = 639.01
12" NE = 638.99

EX 31767
RIM = 641.18
12" SE = 639.18
12" N = 638.90

STOP NO MOTOR VEHICLES

PROPOSED CONSTRUCTION
STA 124+48
R1-1 (18"x18")
R5-3 (18"x18")
Sign, Type IIIA - 2.25 Sft
Sign, Type IIIB - 2.25 Sft
Post, Wood, Sign - 1 Ea

STATION RELATION
STA 117+93 - TRAIL ☉ (IET WEST ALIGNMENT) =
STA 122+68 - TRAIL ☉ (IET FOOTE SITE ALIGNMENT)

SEE SHEET 27 FOR IET WEST PLAN AND PROFILE

PROPOSED CONSTRUCTION
Pavt Mrkg, Polyurea, 12 inch, Crosswalk - 90 Ft

TRAIL X-ING

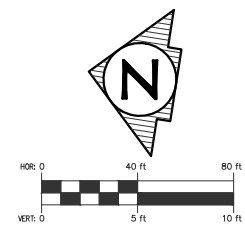
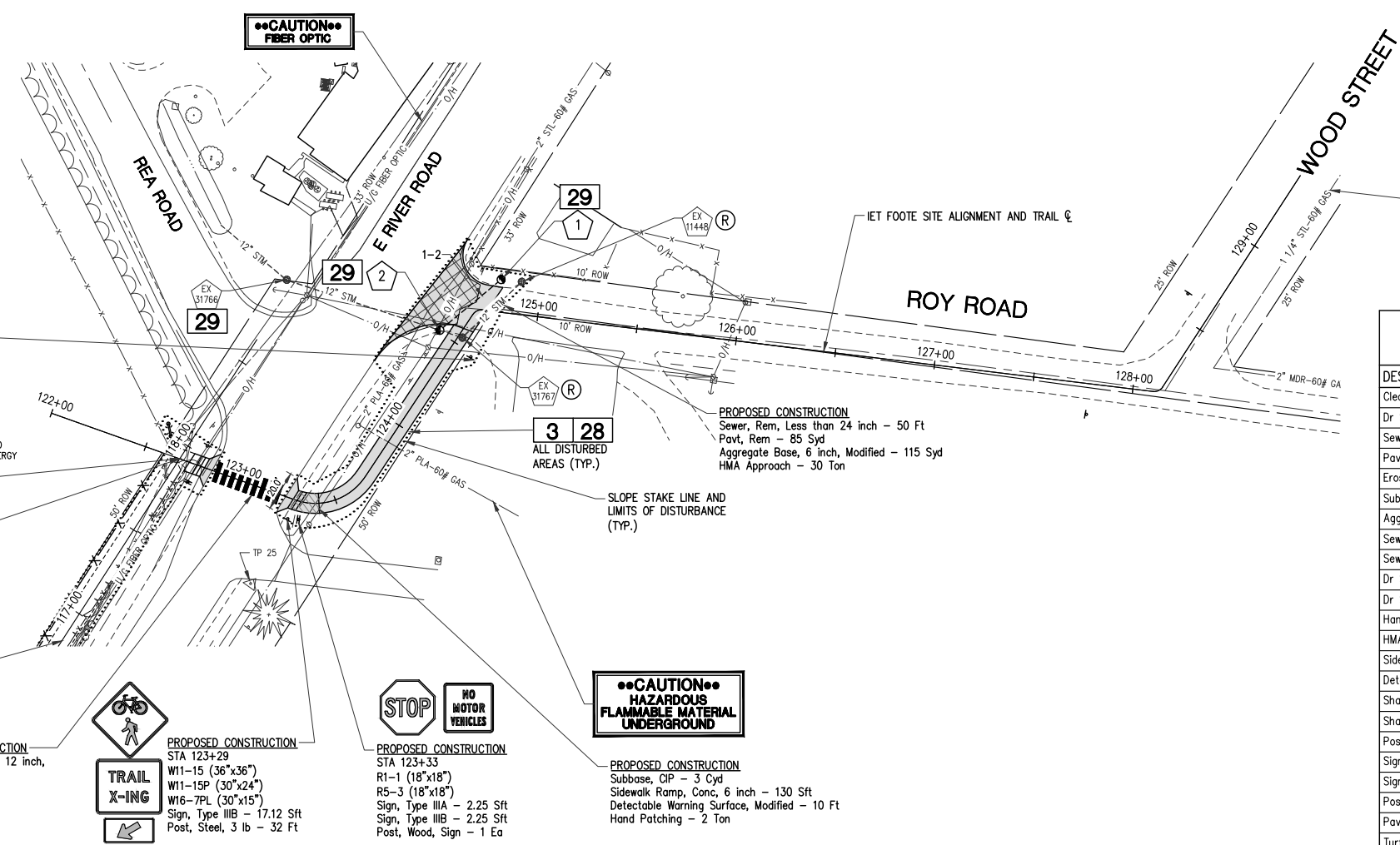
PROPOSED CONSTRUCTION
STA 123+29
W11-15 (36"x36")
W11-15P (30"x24")
W16-7PL (30"x15")
Sign, Type IIIB - 17.12 Sft
Post, Steel, 3 lb - 32 Ft

STOP NO MOTOR VEHICLES

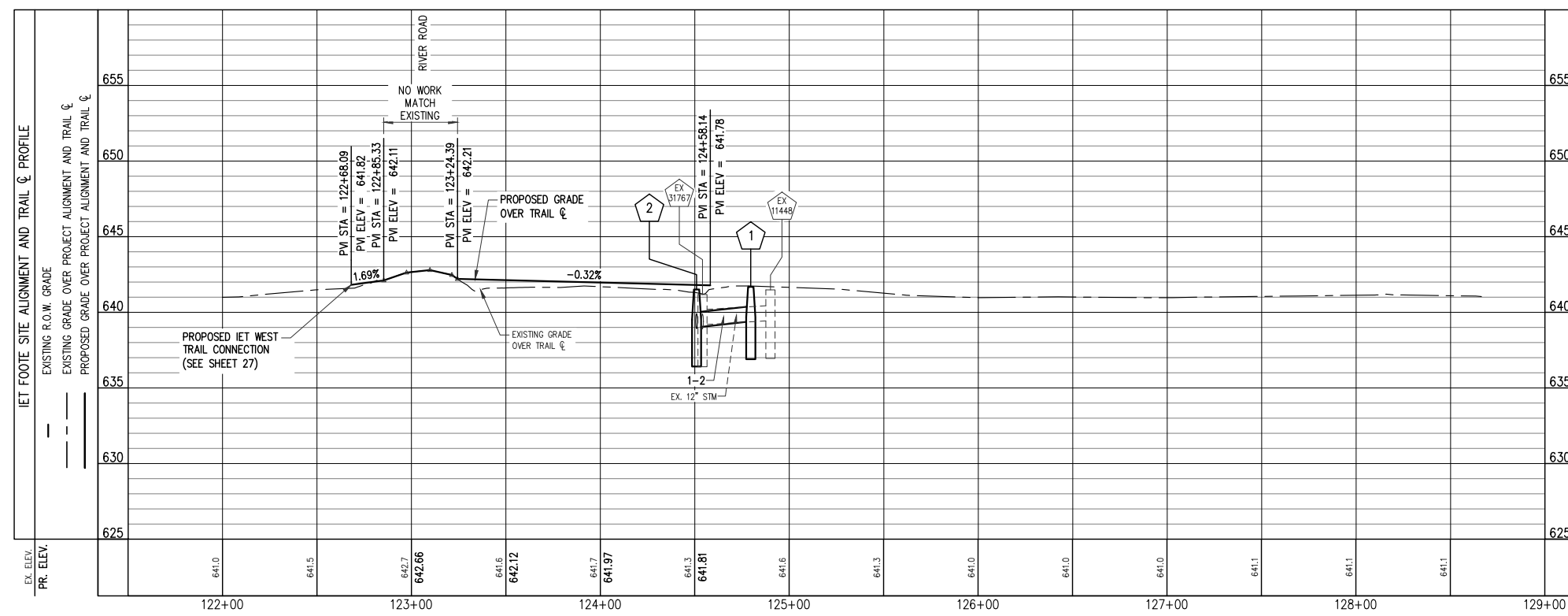
PROPOSED CONSTRUCTION
STA 123+33
R1-1 (18"x18")
R5-3 (18"x18")
Sign, Type IIIA - 2.25 Sft
Sign, Type IIIB - 2.25 Sft
Post, Wood, Sign - 1 Ea

CAUTION HAZARDOUS FLAMMABLE MATERIAL UNDERGROUND

PROPOSED CONSTRUCTION
Subbase, CIP - 3 Cyd
Sidewalk Ramp, Conc, 6 inch - 130 Sft
Detectable Warning Surface, Modified - 10 Ft
Hand Patching - 2 Ton



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	1.4	Sta
Dr Structure, Rem	2	Ea
Sewer, Rem, Less than 24 inch	50	Ft
Pavt, Rem	85	Syd
Erosion Control, Inlet Protection, Fabric Drop	3	Ea
Subbase, CIP	3	Cyd
Aggregate Base, 6 inch, Modified	265	Syd
Sewer, Cl A, 12 inch, Tr Det B	40	Ft
Sewer Tap, 12 inch	1	Ea
Dr Structure Cover, Type G	2	Ea
Dr Structure, 48 inch dia	2	Ea
Hand Patching	2	Ton
HMA Approach	30	Ton
Sidewalk Ramp, Conc, 6 inch	130	Sft
Detectable Warning Surface, Modified	10	Ft
Shared use Path, Grading	135	Ft
Shared use Path, HMA	30	Ton
Post, Steel, 3 lb	32	Ft
Sign, Type IIIA	5	Sft
Sign, Type IIIB	22	Sft
Post, Wood, Sign	2	Ea
Pavt Mrkg, Polyurea, 12 inch, Crosswalk	90	Ft
Turf Establishment, Performance	1.4	Sta



PLAN SUBMITTALS AND CHANGES	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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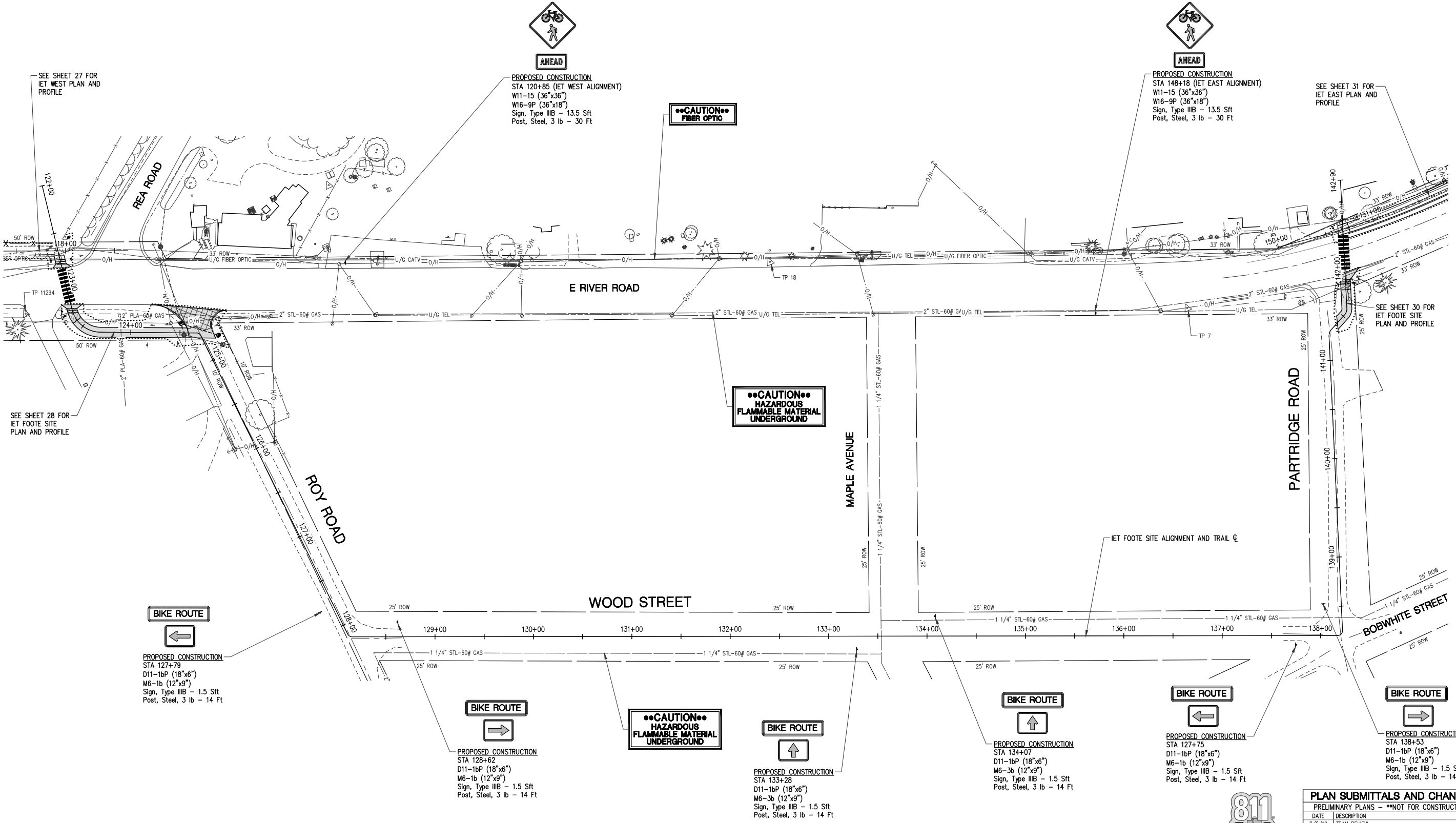
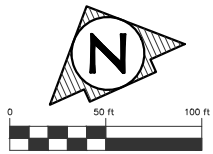


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CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
STA 122+68 (BEGIN CONSTRUCTION) TO STA 124+58
PLAN AND PROFILE SHEET

REV: _____
SHT# 28 OF 46
JOB No: 19C0114

Flint: 9/18/2019 3:17 PM
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SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Post, Steel, 3 lb	144	Ft
Sign, Type III B	36	Sft



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 50'

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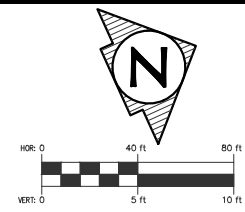
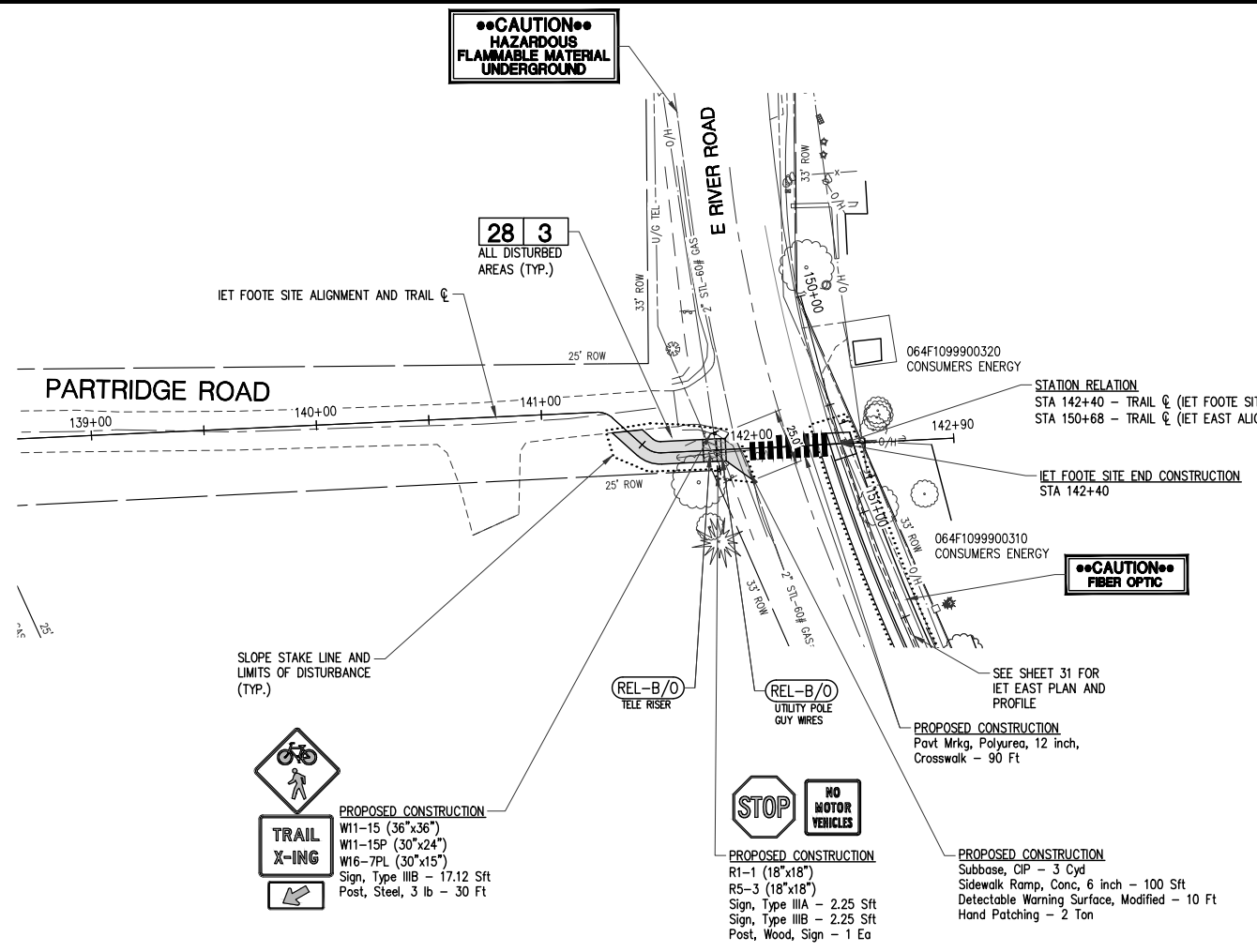
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IOSCO EXPLORATION TRAIL
 STA 124+58 TO STA 141+41
 FOOTE SITE VILLAGE CONNECTOR PLAN SHEET

PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

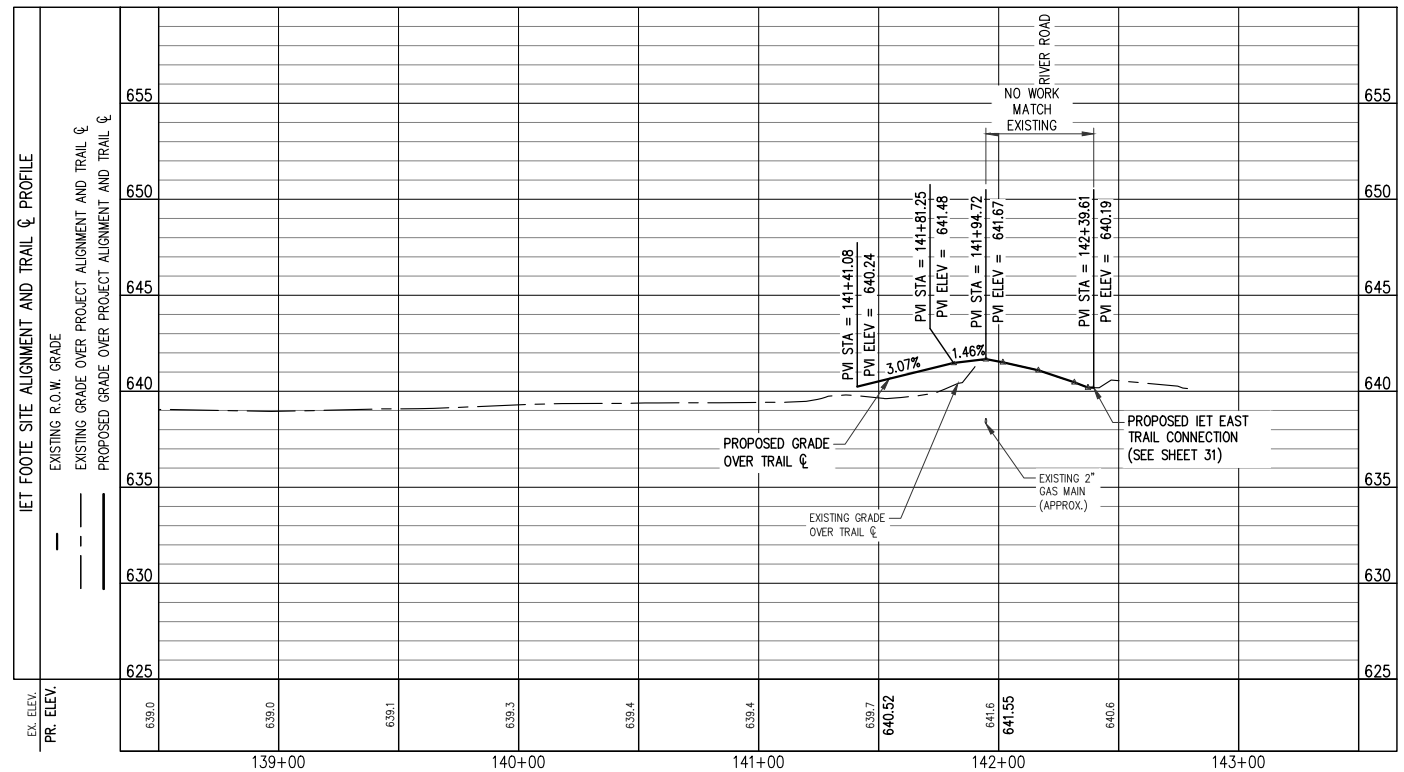
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 SHT# 29 OF 46
 JOB No: 19C0114



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SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	0.5	Sta
Subbase, CIP	3	Cyd
Aggregate Base, 6 inch, Modified	60	Syd
Hand Patching	2	Ton
Sidewalk Ramp, Conc, 6 inch	100	Sft
Detectable Warning Surface, Modified	10	Ft
Shared use Path, Grading	54	Ft
Shared use Path, HMA	15	Ton
Post, Steel, 3 lb	30	Ft
Sign, Type IIIA	3	Sft
Sign, Type IIIB	20	Sft
Post, Wood, Sign	1	Ea
Pavt Mrkg, Polyurea, 12 inch, Crosswalk	90	Ft
Turf Establishment, Performance	0.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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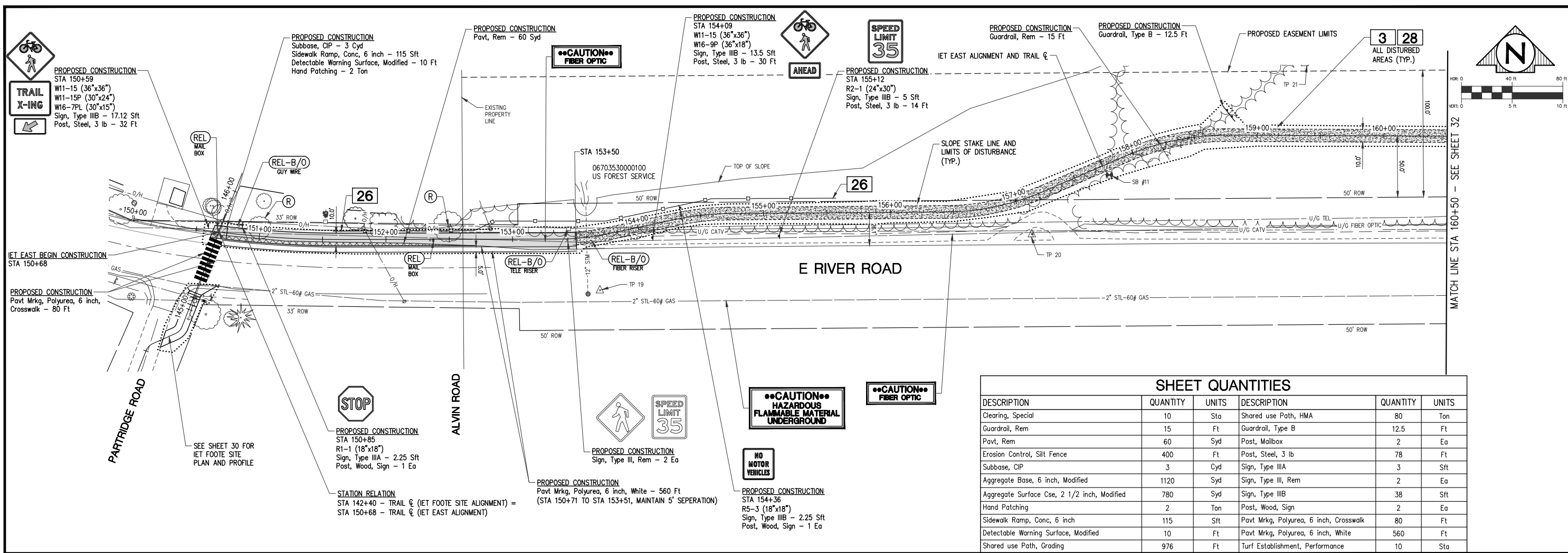
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IOSCO EXPLORATION TRAIL
 STA 141+41 TO STA 142+40 (END CONSTRUCTION)
 PLAN AND PROFILE SHEET



PLAN SUBMITTALS AND CHANGES	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

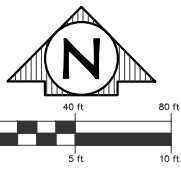
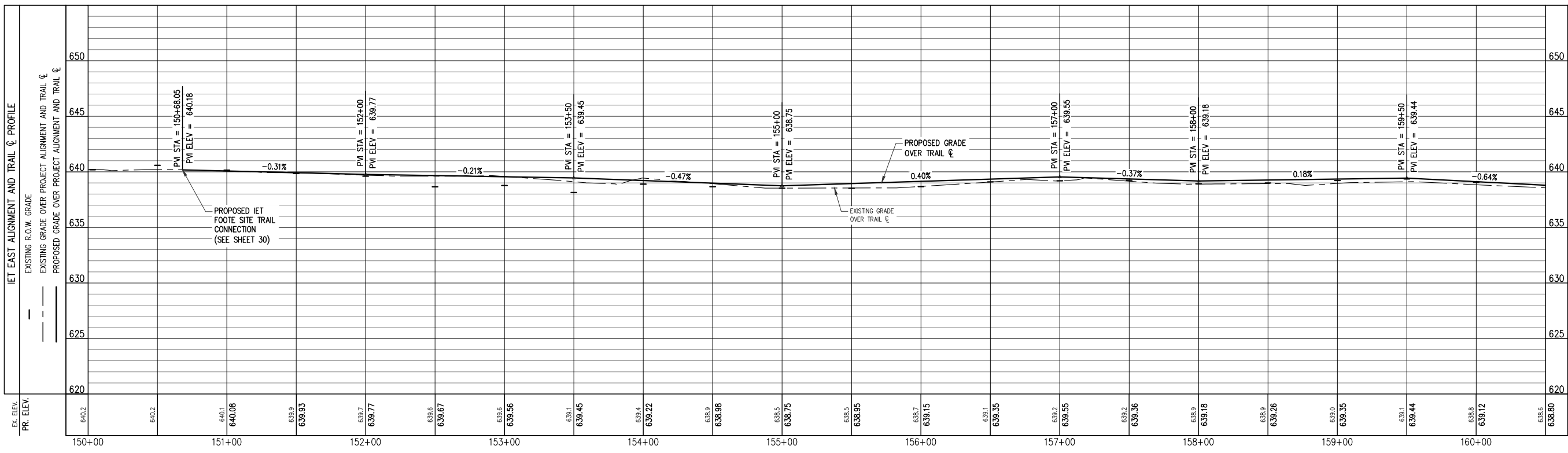
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 JOB No: 19C0114

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SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10	Sta	Shared use Path, HMA	80	Ton
Guardrail, Rem	15	Ft	Guardrail, Type B	12.5	Ft
Pavt, Rem	60	Syd	Post, Mailbox	2	Ea
Erosion Control, Silt Fence	400	Ft	Post, Steel, 3 lb	78	Ft
Subbase, CIP	3	Cyd	Sign, Type IIIA	3	Sft
Aggregate Base, 6 inch, Modified	1120	Syd	Sign, Type III, Rem	2	Ea
Aggregate Surface Cse, 2 1/2 inch, Modified	780	Syd	Sign, Type IIIB	38	Sft
Hand Patching	2	Ton	Post, Wood, Sign	2	Ea
Sidewalk Ramp, Conc, 6 inch	115	Sft	Pavt Mrkg, Polyurea, 6 inch, Crosswalk	80	Ft
Detectable Warning Surface, Modified	10	Ft	Pavt Mrkg, Polyurea, 6 inch, White	560	Ft
Shared use Path, Grading	976	Ft	Turf Establishment, Performance	10	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
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IOSCO EXPLORATION TRAIL
 STA 150+68 (BEGIN CONSTRUCTION) TO STA 160+50
 PLAN AND PROFILE SHEET

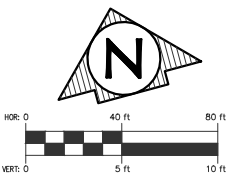
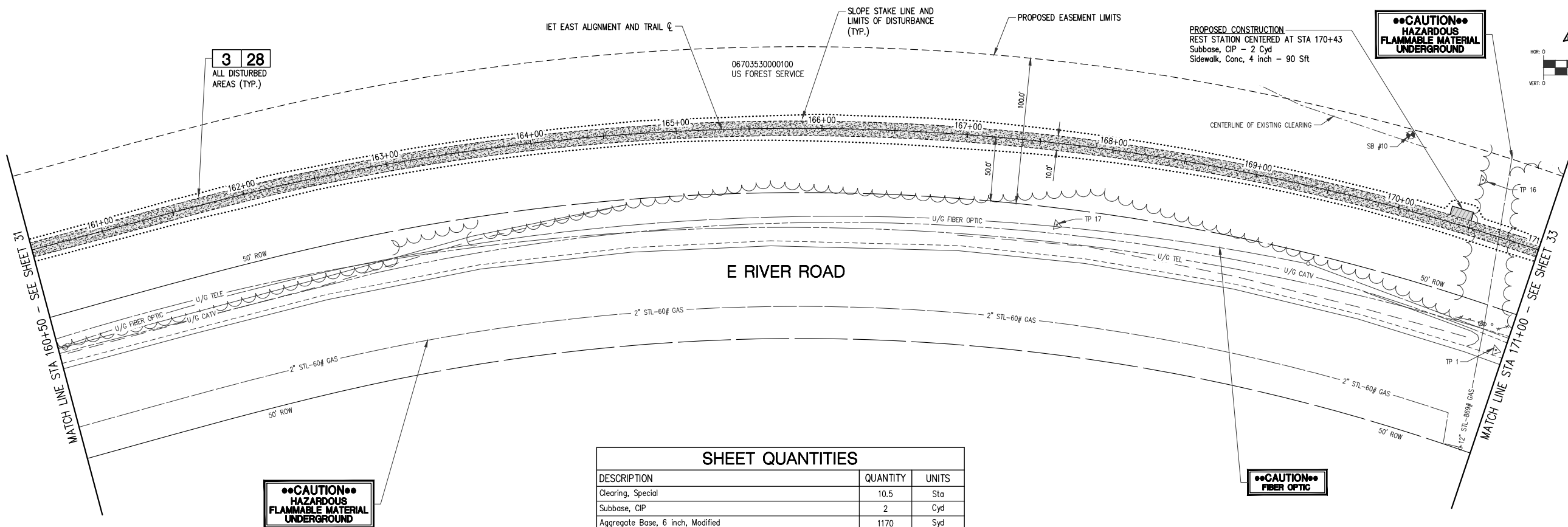


PLAN SUBMITTALS AND CHANGES

PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**

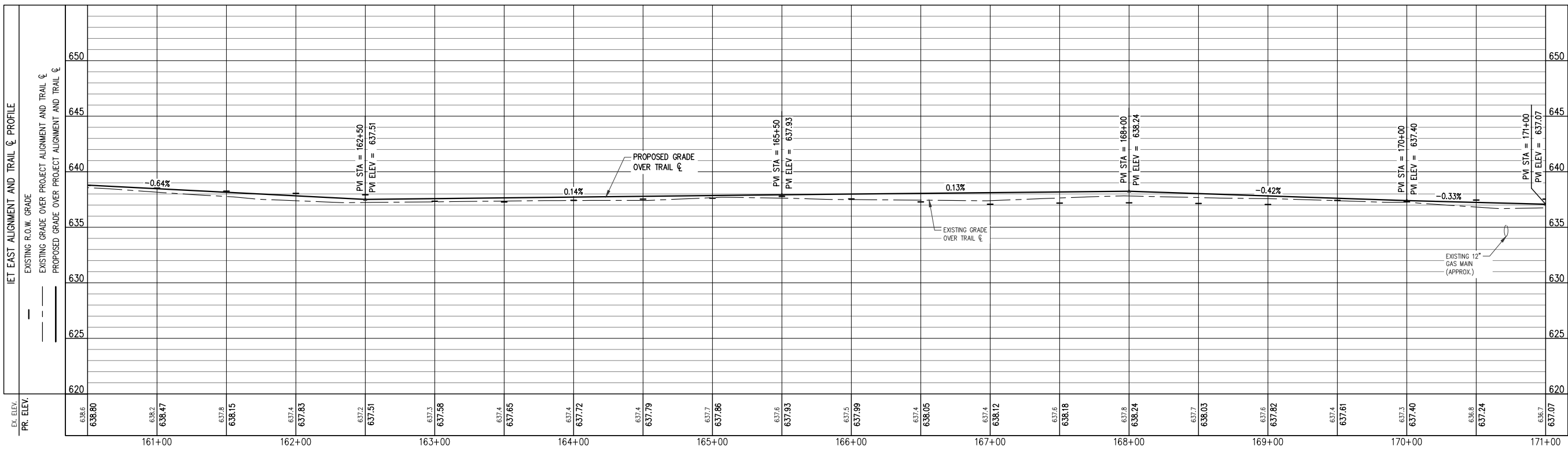
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 31 OF 46
 JOB No: 19C0114



SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Subbase, CIP	2	Cyd
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Sidewalk, Conc, 4 inch	90	Sft
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



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**CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL**

STA 160+50 TO STA 171+00
PLAN AND PROFILE SHEET

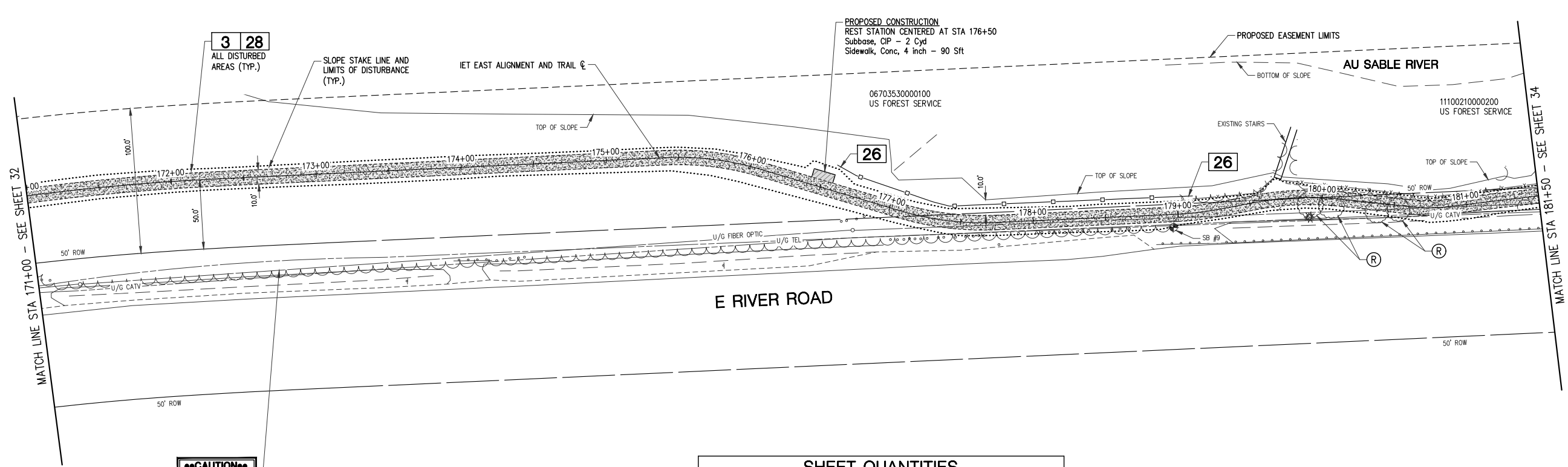
PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

PLAN SUBMITTALS AND CHANGES

PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**

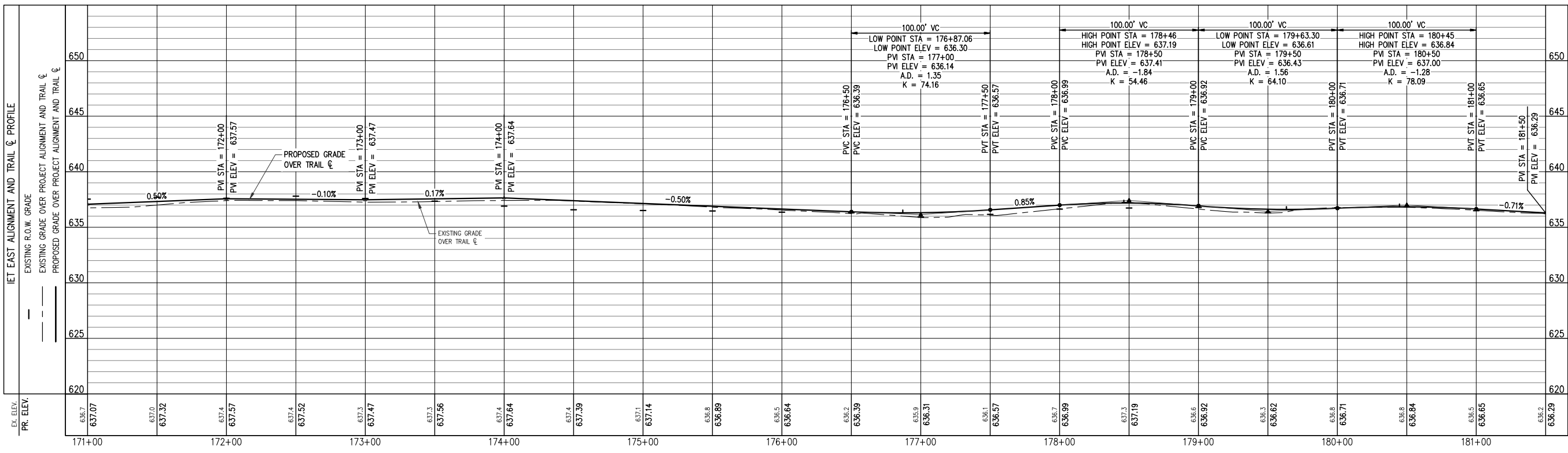
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL





••CAUTION••
FIBER OPTIC

SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Erosion Control, Silt Fence	250	Ft
Subbase, CIP	2	Cyd
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Sidewalk, Conc, 4 inch	90	Sft
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



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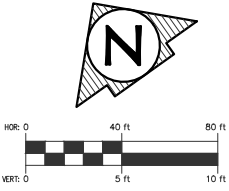
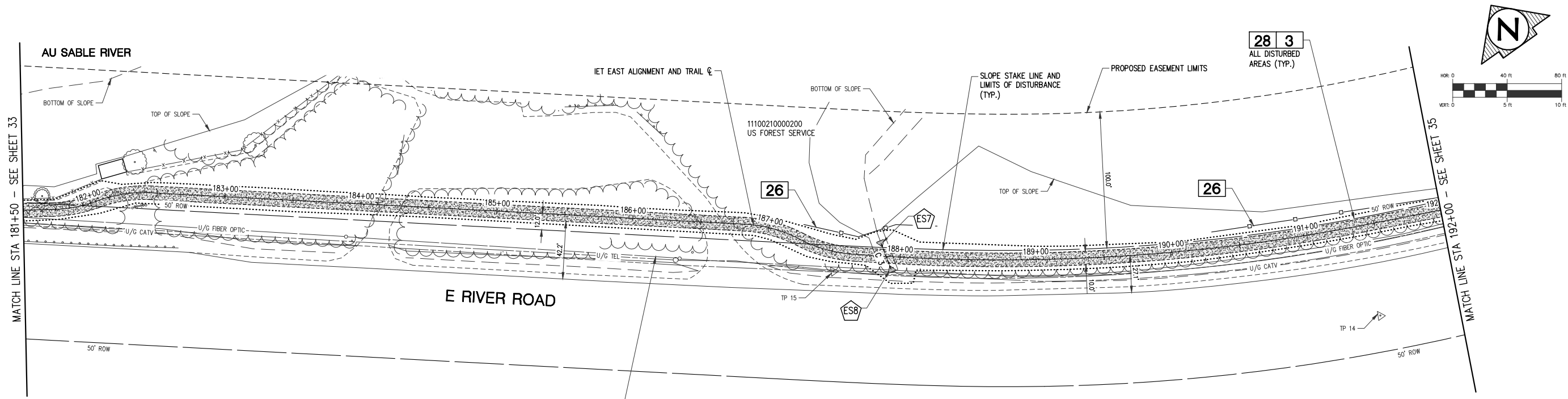
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PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
 STA 171+00 TO STA 181+50
 PLAN AND PROFILE SHEET

PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# **33** OF **46**
 JOB No: 19C0114



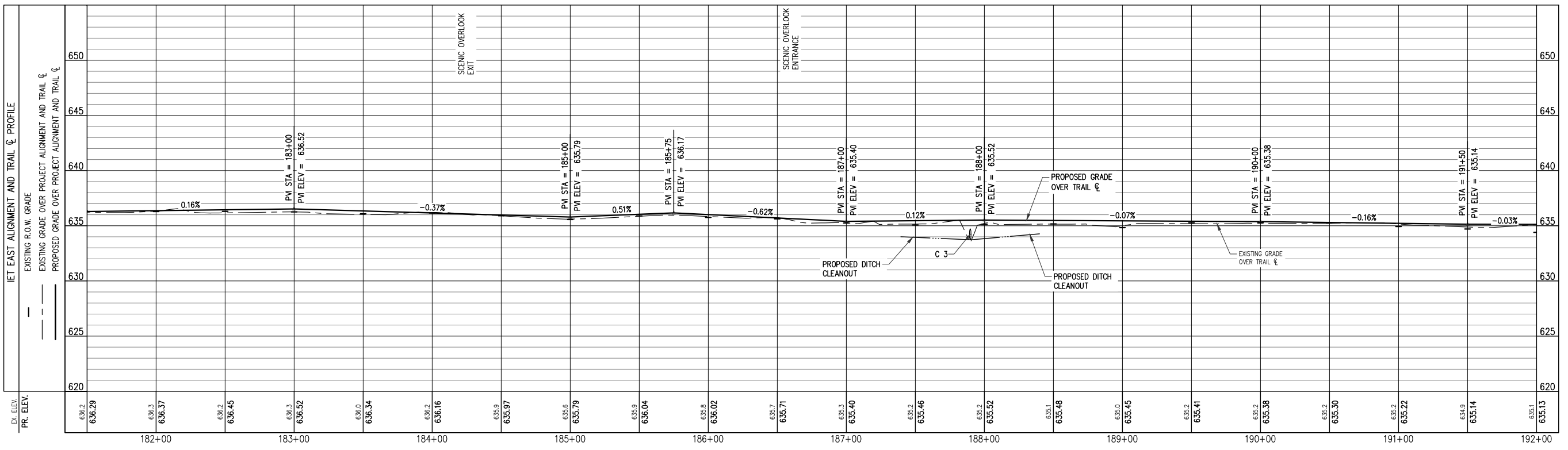


SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Ditch Cleanout	1	Sta
Erosion Control, Silt Fence	270	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Culv End Sect, Metal, 12 inch	2	Ea
Culv, Cl F, CSP, 12 inch	20	Ft
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta

CAUTION
FIBER OPTIC

PROPOSED STORM SEWER END SECTION TABLE					
STRUCT NO.	DIA.	PAY ITEM	END OF PIPE INVERT	END OF PIPE STATION	END OF PIPE OFFSET
ES7	12"	Culv End Sect, Metal	12" 633.65	187+85.5	9.1 L
ES8	12"	Culv End Sect, Metal	12" 633.80	187+93.9	9.1 R

PROPOSED STORM SEWER PIPE TABLE				
PIPE NUMBER	DIAMETER	PAY ITEM	TOTAL LENGTH	SLOPE
C 3	12"	Culv, Cl F, CSP, 12inch	20'	0.75%



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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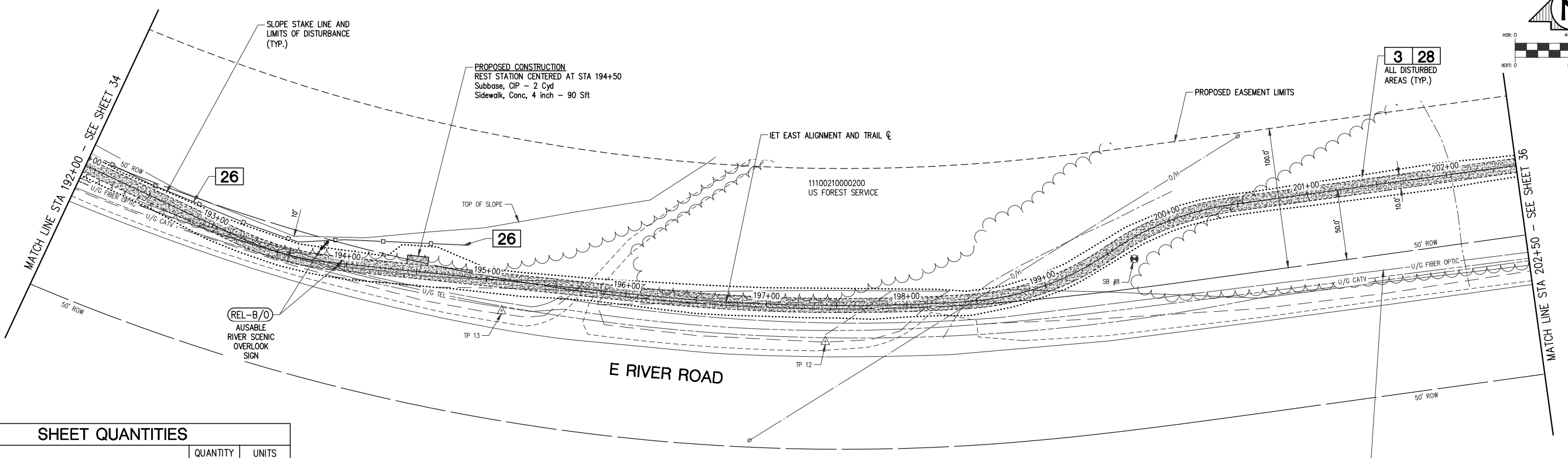
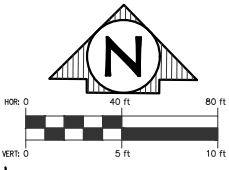
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 STA 181+50 TO STA 192+00
 PLAN AND PROFILE SHEET



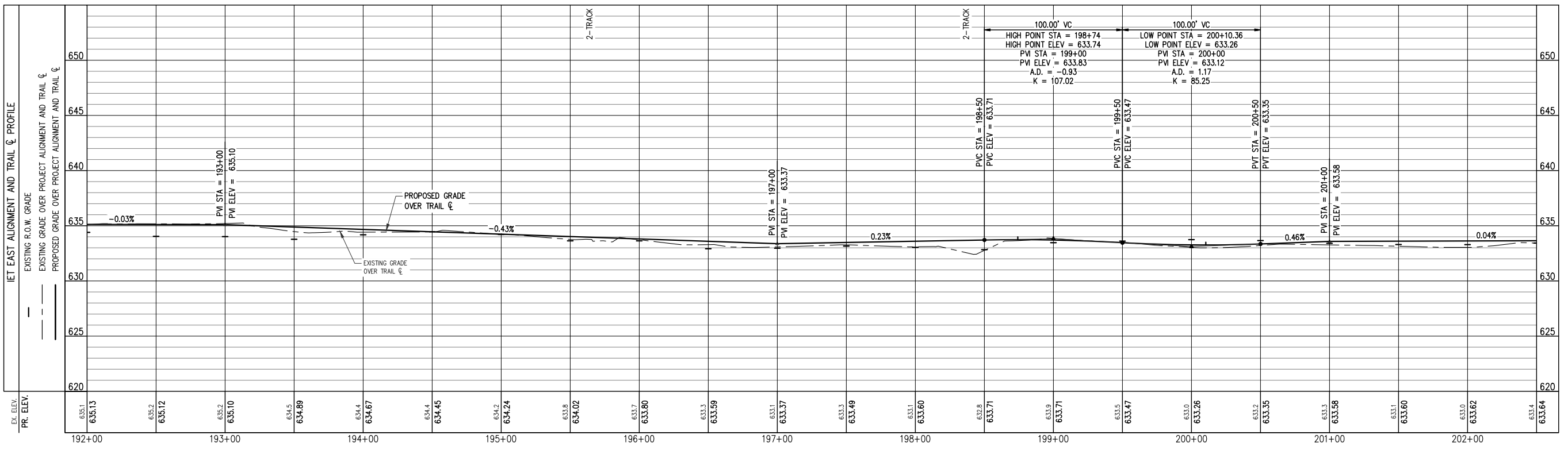
PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 34 OF 46
 JOB No: 19C0114

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SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Erosion Control, Silt Fence	280	Ft
Subbase, CIP	2	Cyd
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Sidewalk, Conc, 4 inch	90	Sft
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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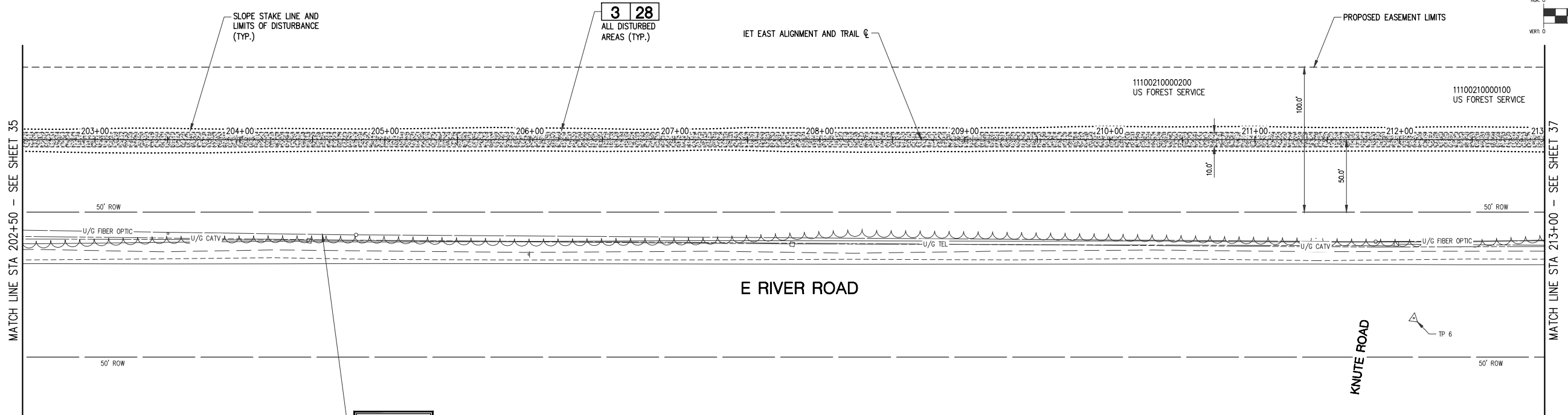
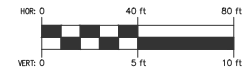


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IOSCO EXPLORATION TRAIL
 STA 192+00 TO STA 202+50
 PLAN AND PROFILE SHEET



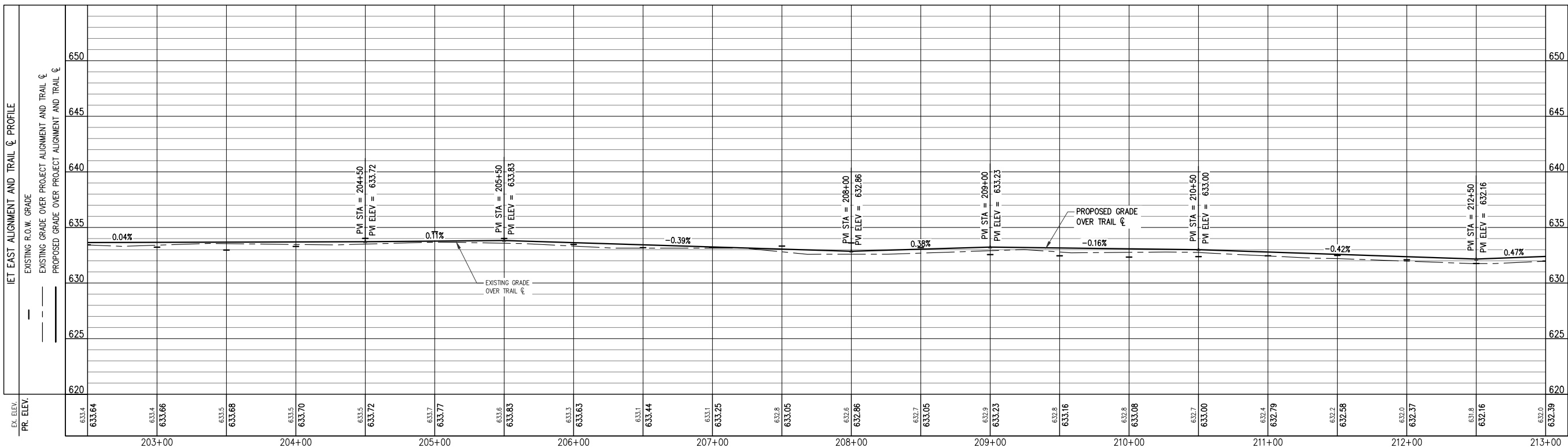
PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 35 OF 46
 JOB No: 19C0114



CAUTION
FIBER OPTIC

SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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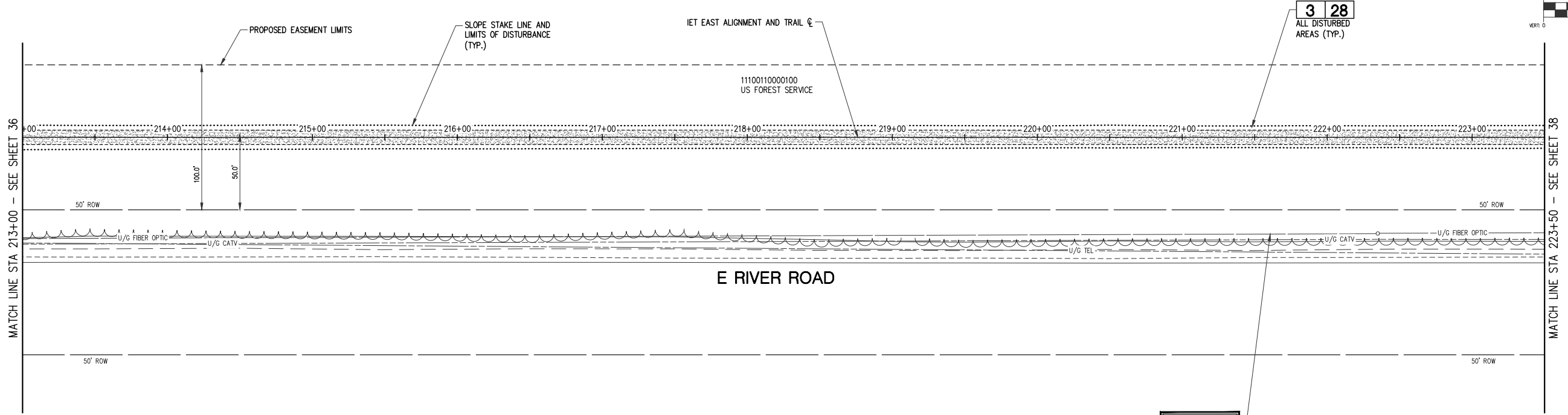
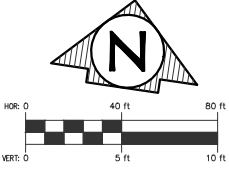


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STA 202+50 TO STA 213+00
PLAN AND PROFILE SHEET



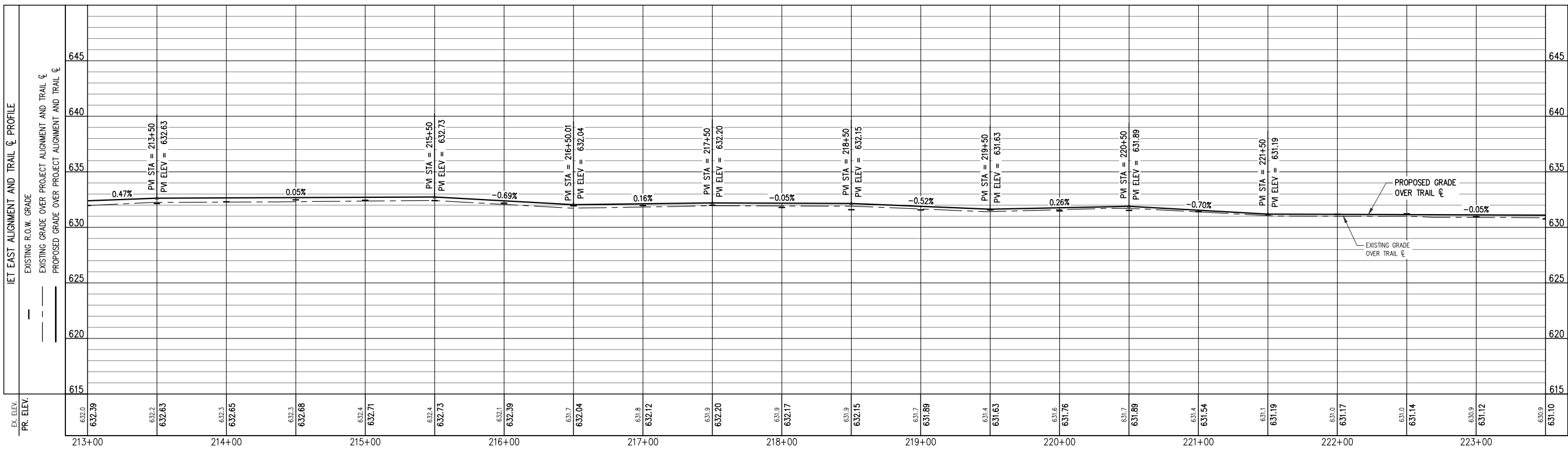
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PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
SHT# **36** OF **46**
JOB No: 19C0114



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta

CAUTION
FIBER OPTIC



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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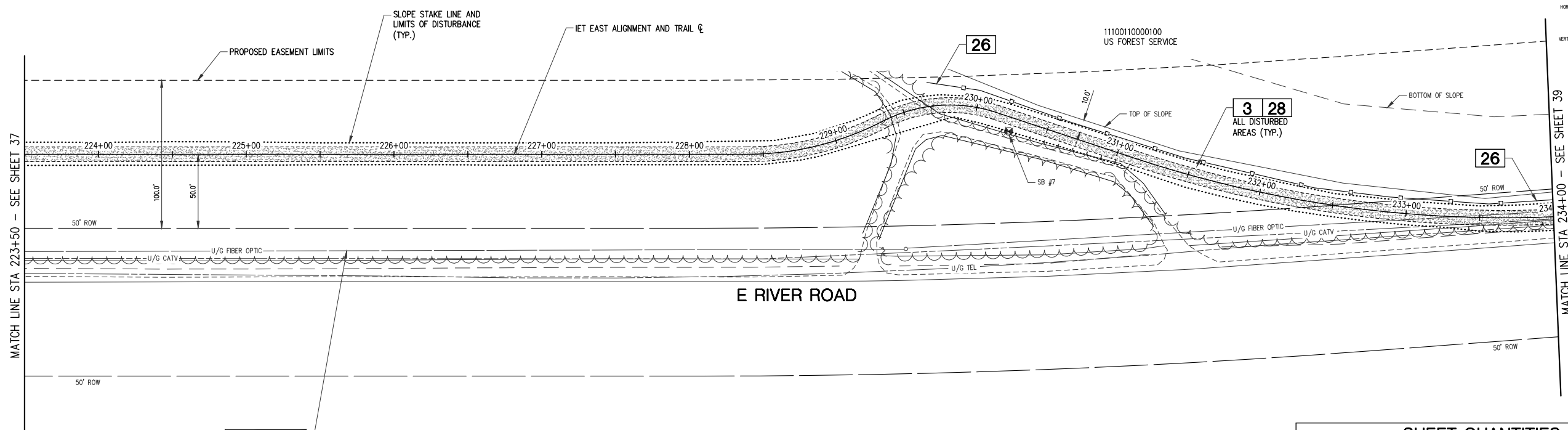
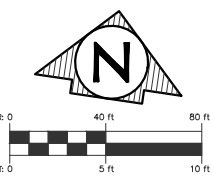


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 STA 213+00 TO STA 223+50
 PLAN AND PROFILE SHEET

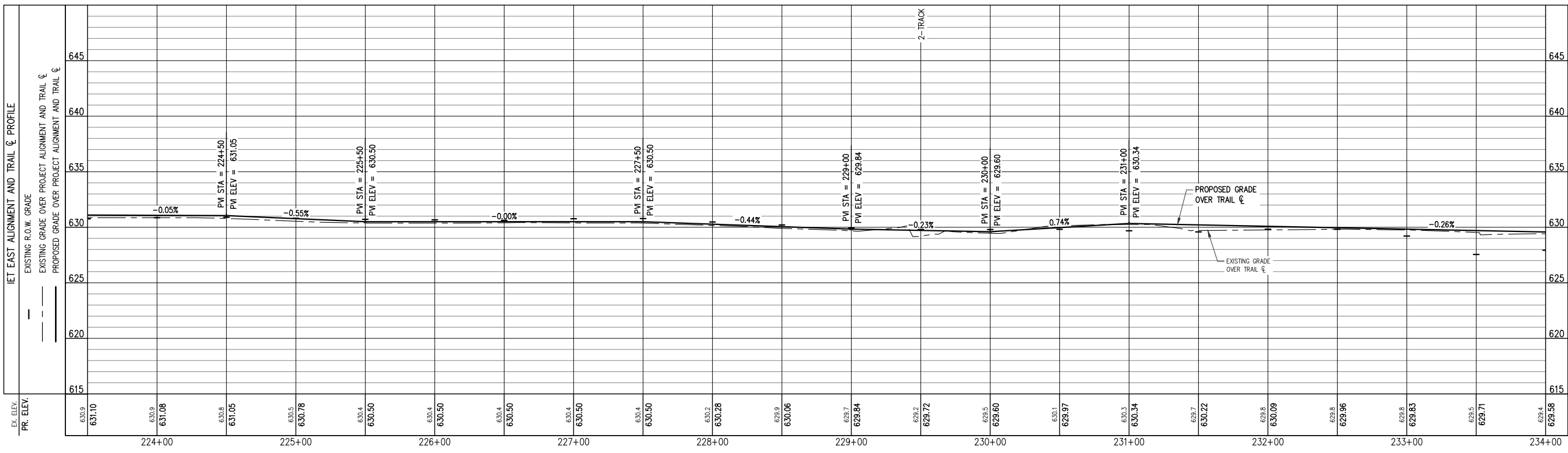


PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV:
 SHT# 37 OF 46
 JOB No: 19C0114



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Erosion Control, Silt Fence	435	Ft
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

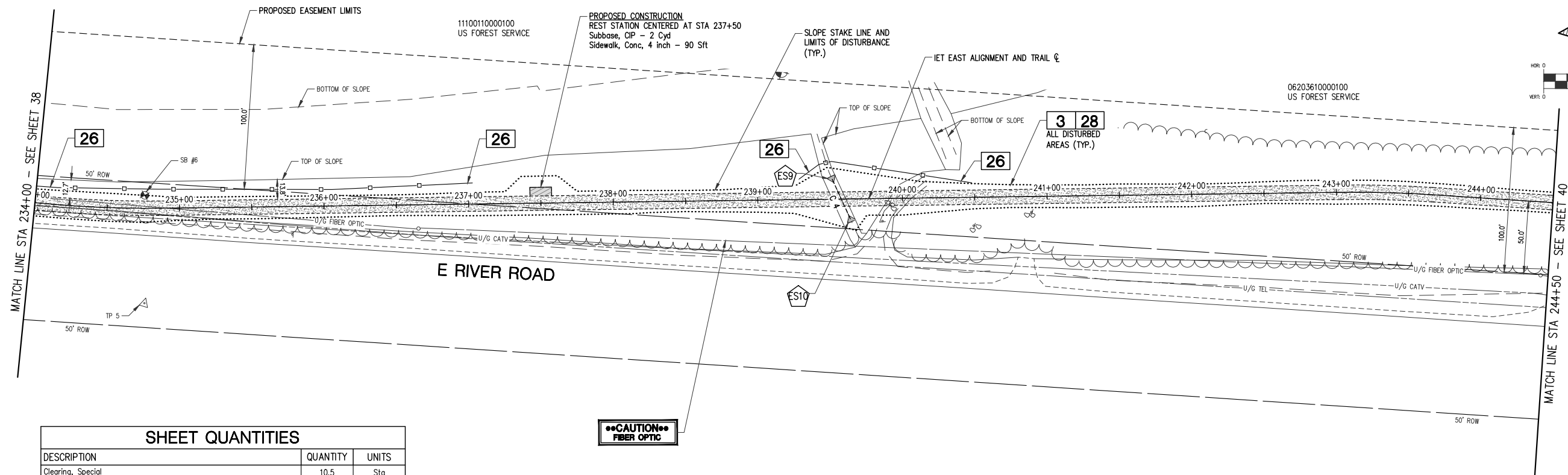
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IOSCO EXPLORATION TRAIL
 STA 223+50 TO STA 234+00
 PLAN AND PROFILE SHEET



PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 38 OF 46
 JOB No: 19C0114



SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Erosion Control, Silt Fence	425	Ft
Subbase, CIP	2	Cyd
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Culv End Sect, Metal, 12 inch	2	Ea
Culv, Cl F, CSP, 12 inch	30	Ft
Sidewalk, Conc, 4 inch	90	Sft
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta

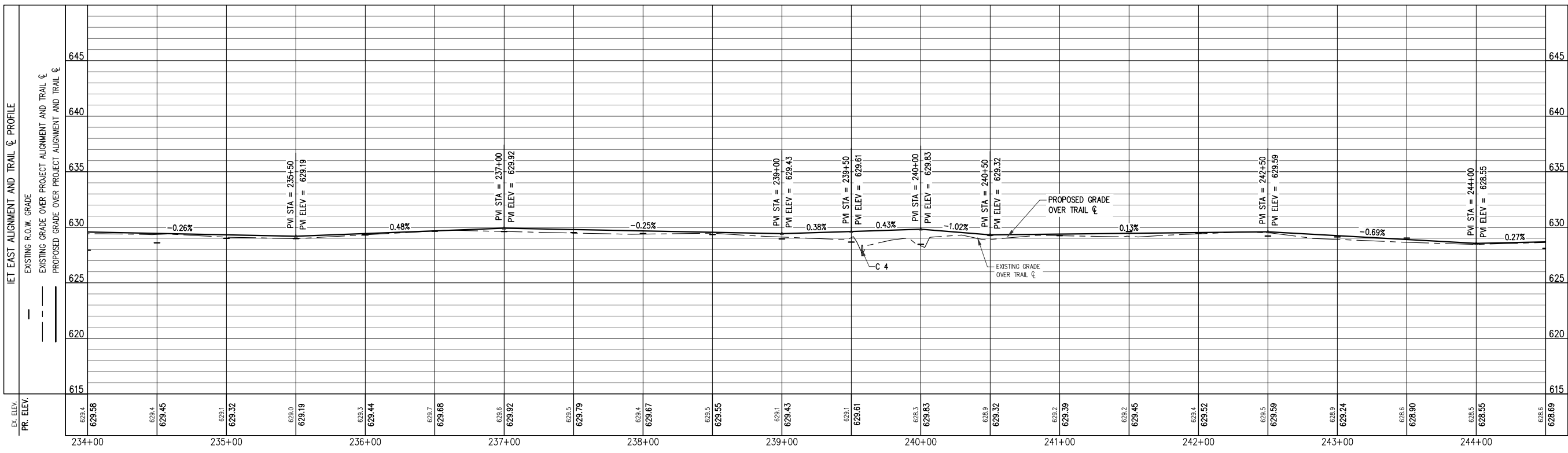
CAUTION
FIBER OPTIC

PROPOSED STORM SEWER END SECTION TABLE

STRUCT NO.	DIA.	PAY ITEM	END OF PIPE INVERT	END OF PIPE STATION	END OF PIPE OFFSET
ES9	12"	Culv End Sect, Metal	12" 627.32	239+51.7	13.7 L
ES10	12"	Culv End Sect, Metal	12" 627.50	239+63.8	13.7 R

PROPOSED STORM SEWER PIPE TABLE

PIPE NUMBER	DIAMETER	PAY ITEM	TOTAL LENGTH	SLOPE
C 4	12"	Culv, Cl F, CSP, 12inch	30'	0.60%



PLAN SUBMITTALS AND CHANGES

PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
SHT# 39 OF 46
JOB No: 19C0114

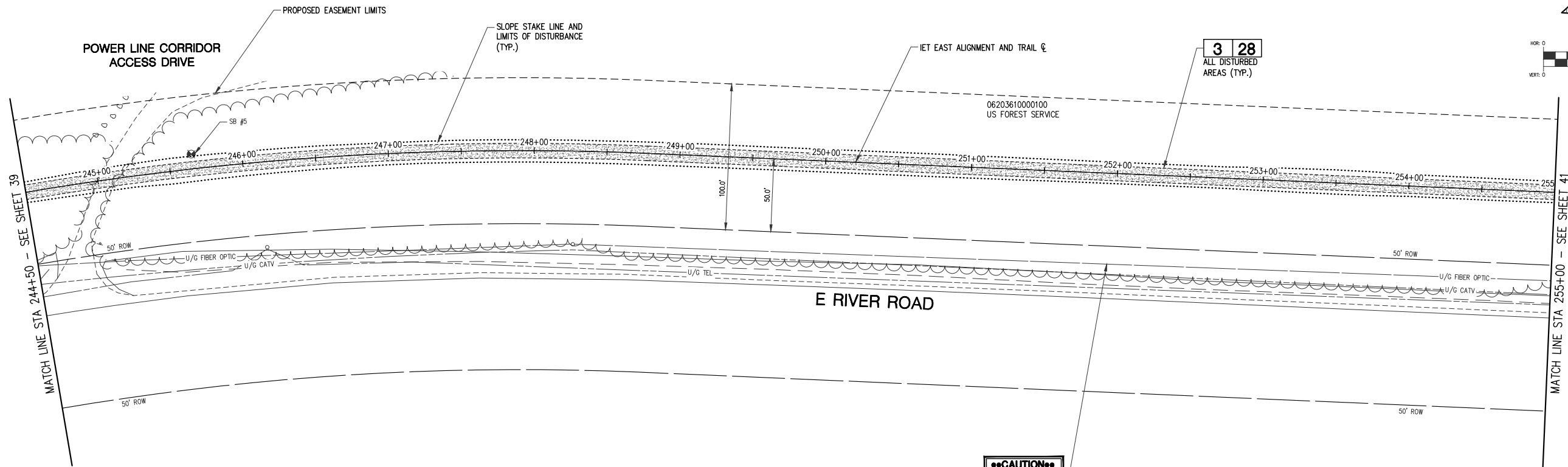
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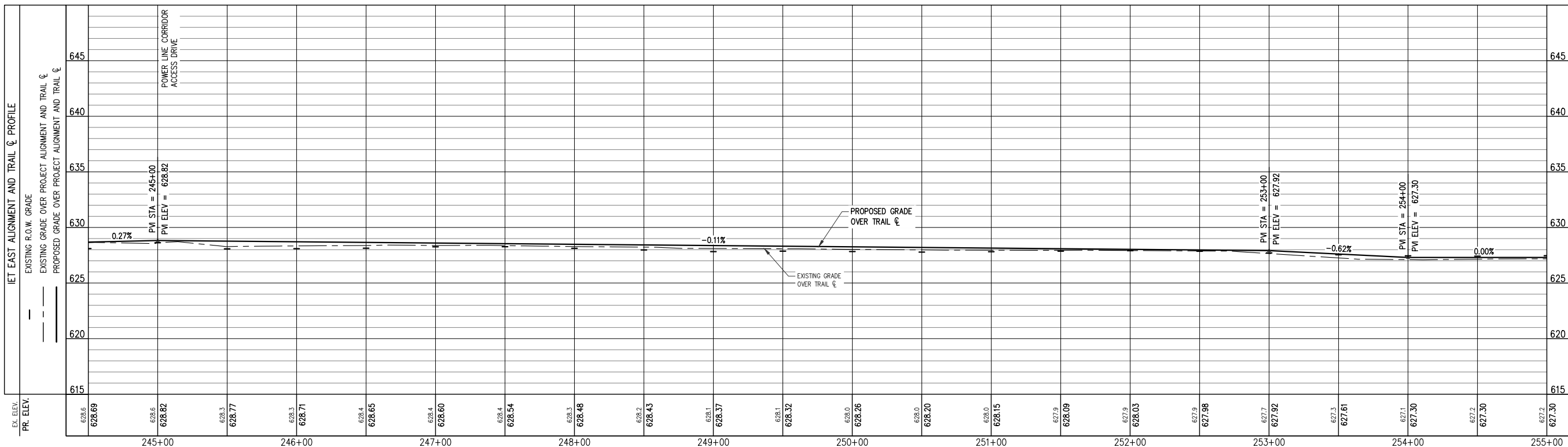
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PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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IOSCO EXPLORATION TRAIL
STA 234+00 TO STA 244+50
PLAN AND PROFILE SHEET



SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



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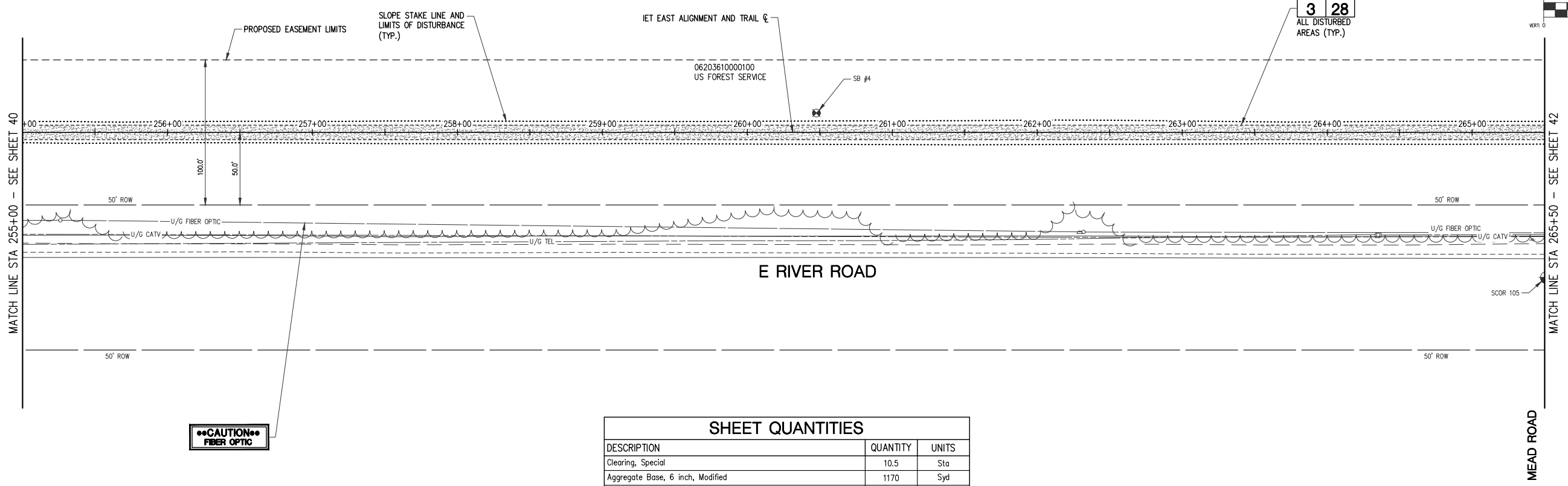
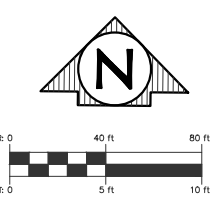
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IOSCO EXPLORATION TRAIL
 STA 244+50 TO STA 255+00
 PLAN AND PROFILE SHEET

PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

PLAN SUBMITTALS AND CHANGES	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

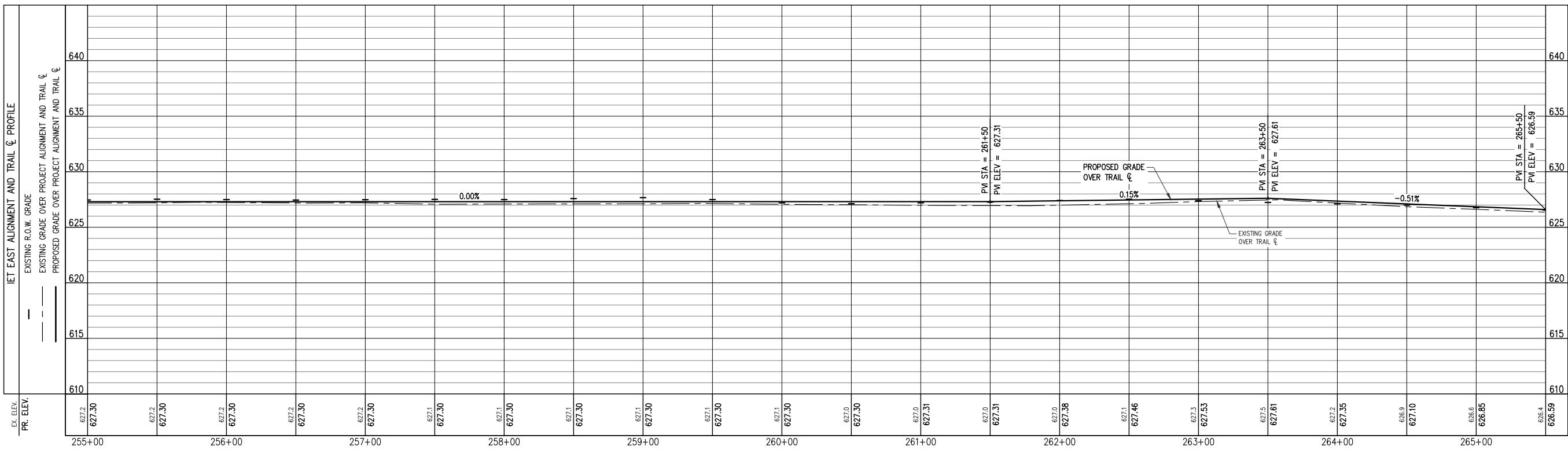


REV: _____
 SHT# 40 OF 46
 JOB No: 19C0114



CAUTION
FIBER OPTIC

SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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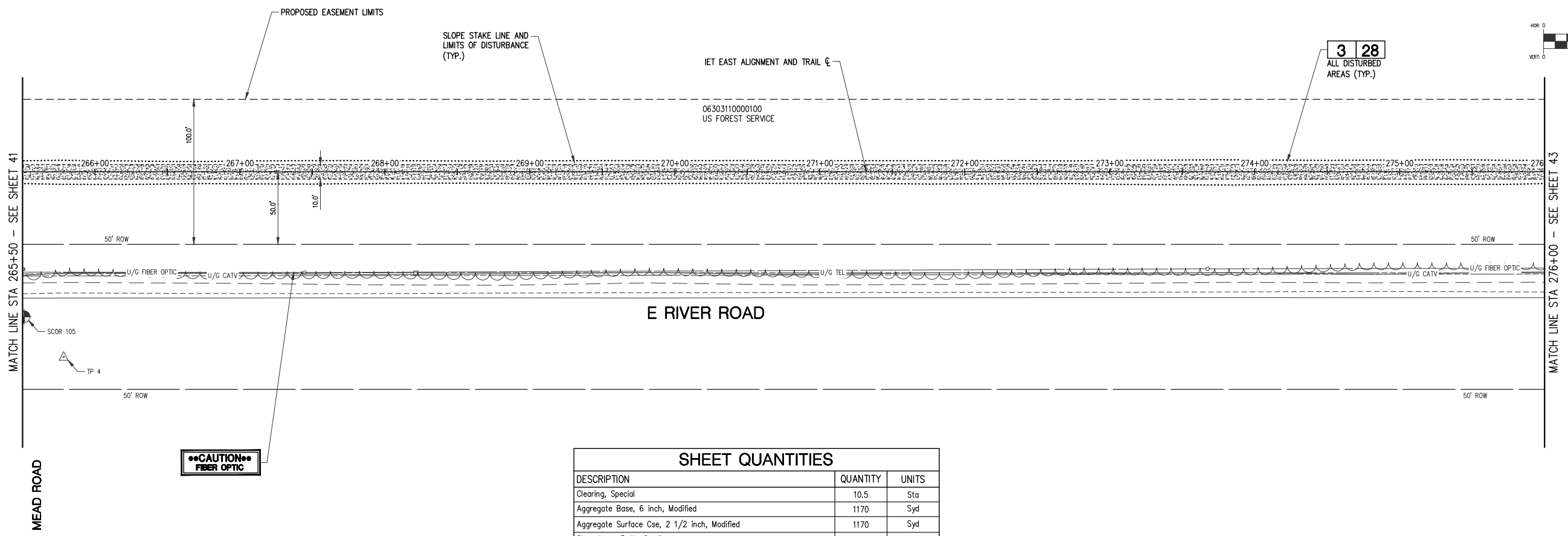
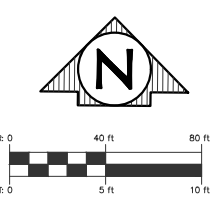
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IOSCO EXPLORATION TRAIL
 STA 255+00 TO STA 265+00
 PLAN AND PROFILE SHEET



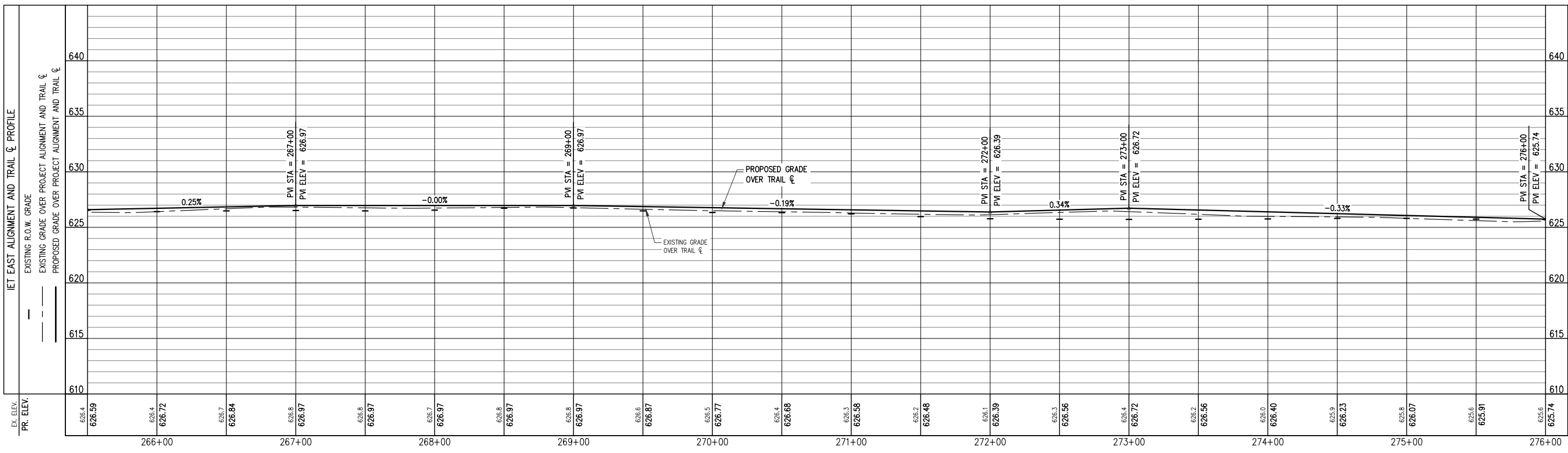
PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 41 OF 46
 JOB No: 19C0114

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SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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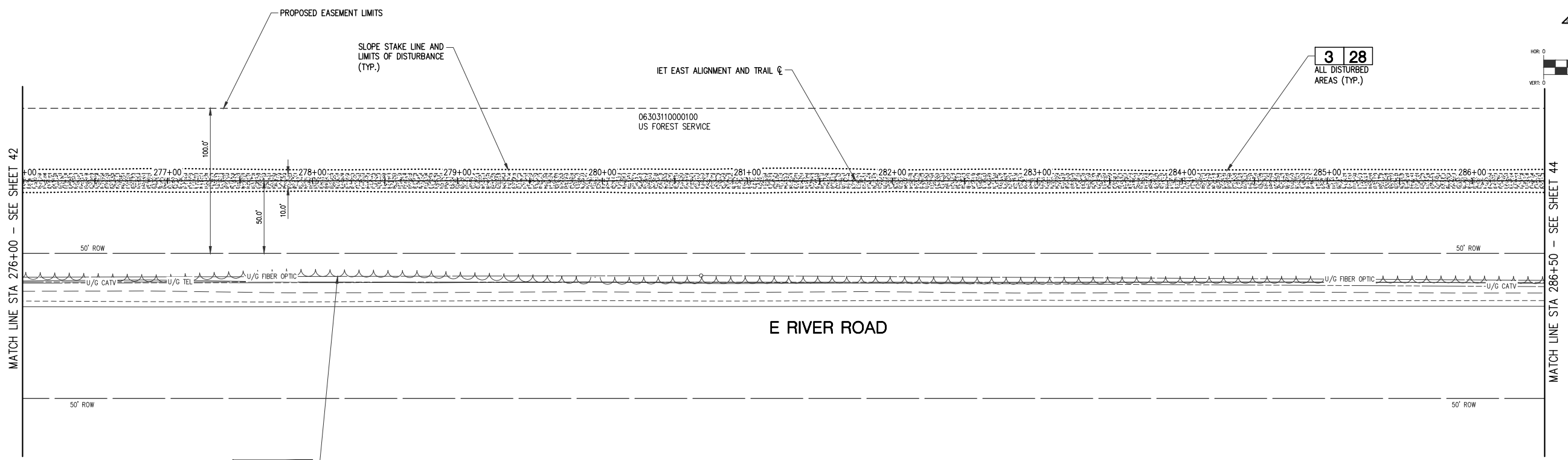
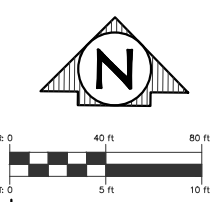
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 STA 265+50 TO STA 276+00
 PLAN AND PROFILE SHEET



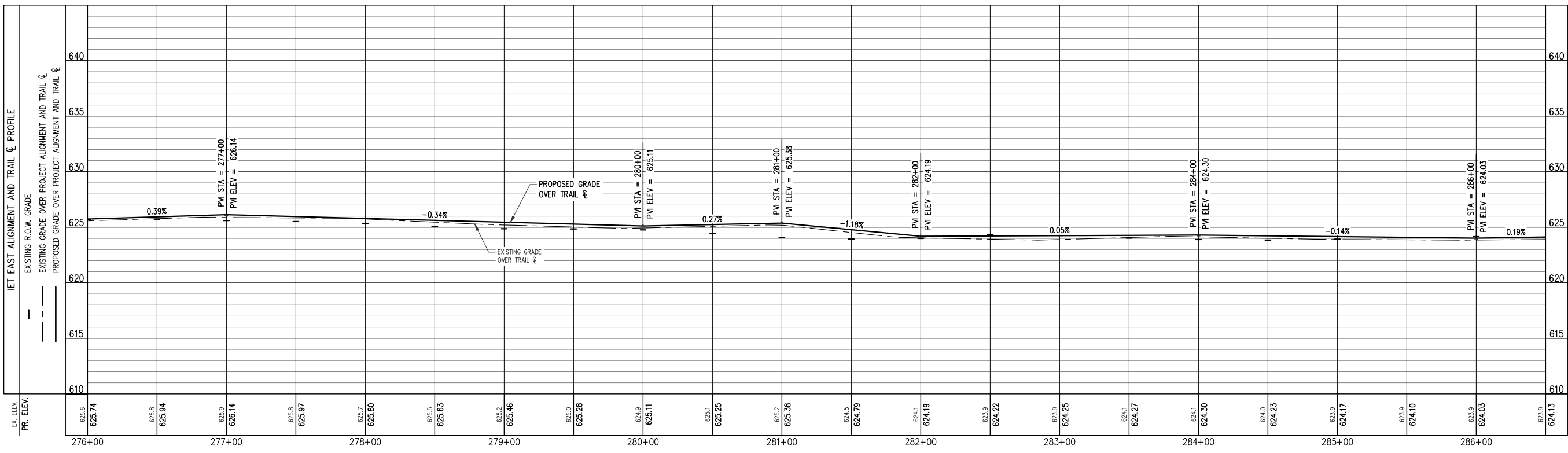
PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
 SHT# 42 OF 46
 JOB No: 19C0114



CAUTION
FIBER OPTIC

SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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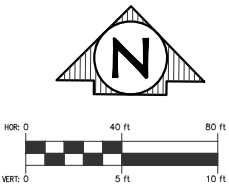
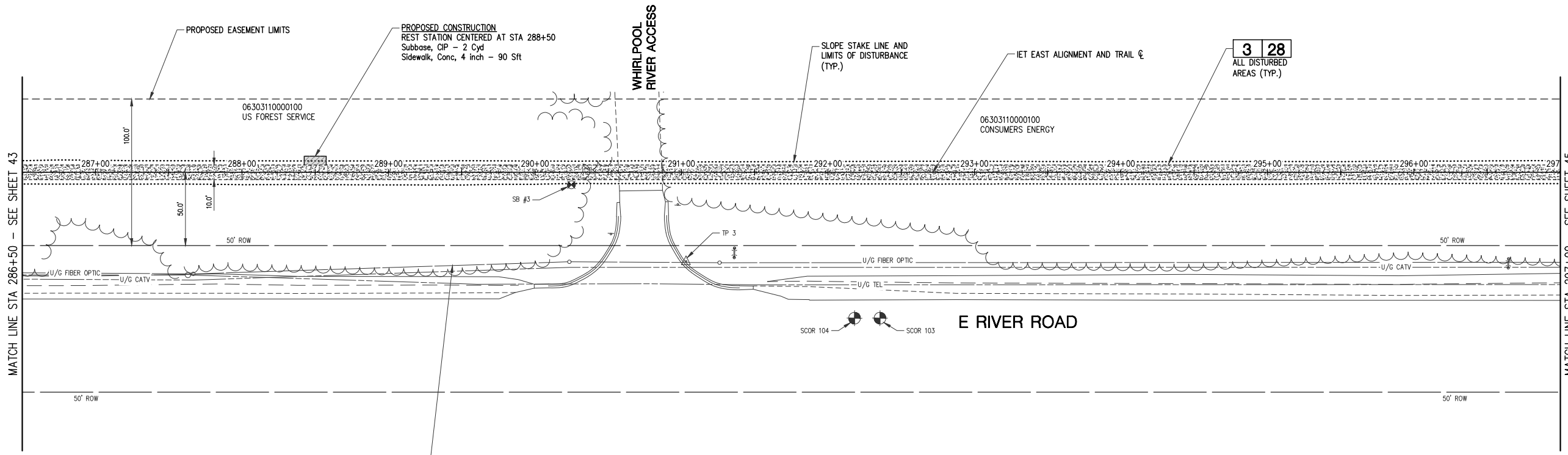


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IOSCO EXPLORATION TRAIL
STA 276+00 TO STA 286+50
PLAN AND PROFILE SHEET



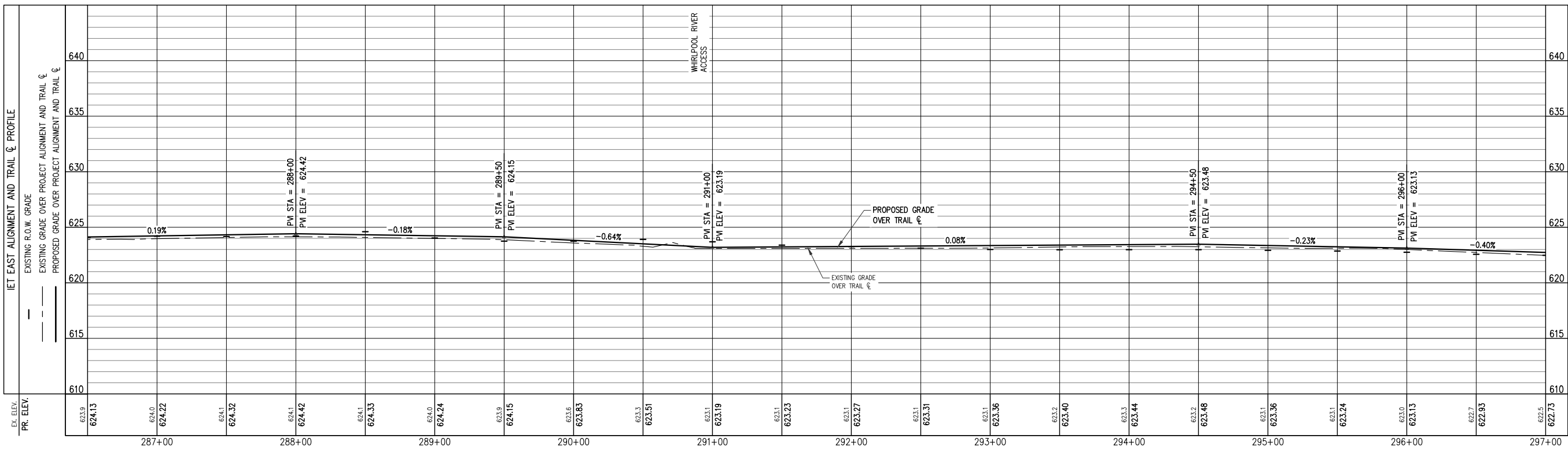
PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

REV: _____
SHT# 43 OF 46
JOB No: 19C0114



CAUTION
FIBER OPTIC

SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Subbase, CIP	2	Cyd
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Sidewalk, Conc, 4 inch	90	Sft
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

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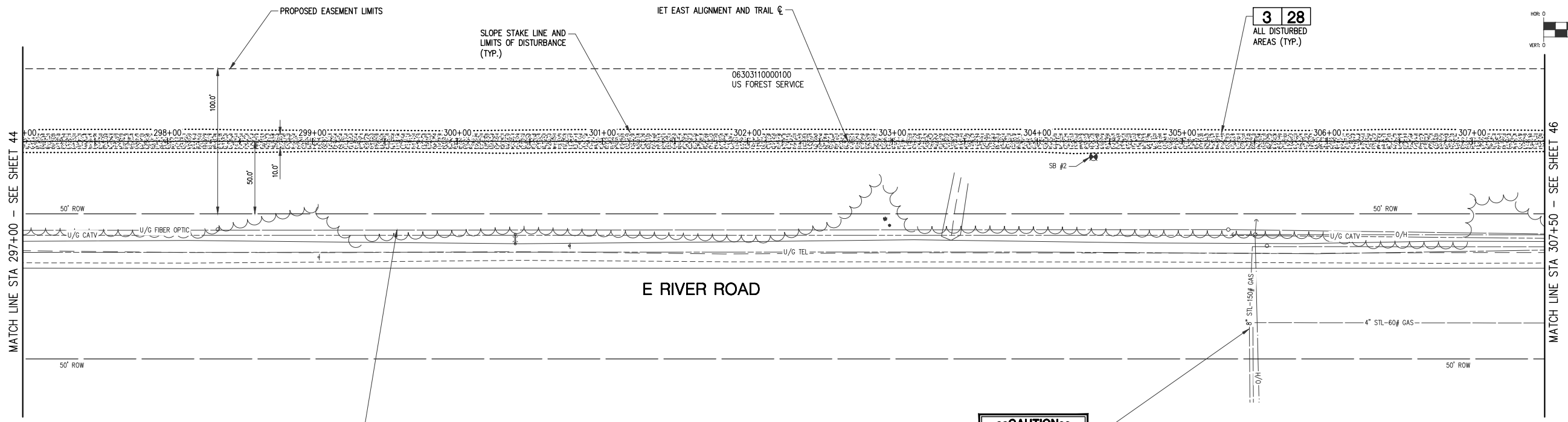
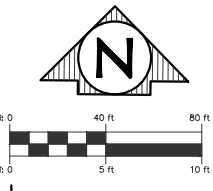


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IOSCO EXPLORATION TRAIL
 STA 286+50 TO STA 297+00
 PLAN AND PROFILE SHEET



PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

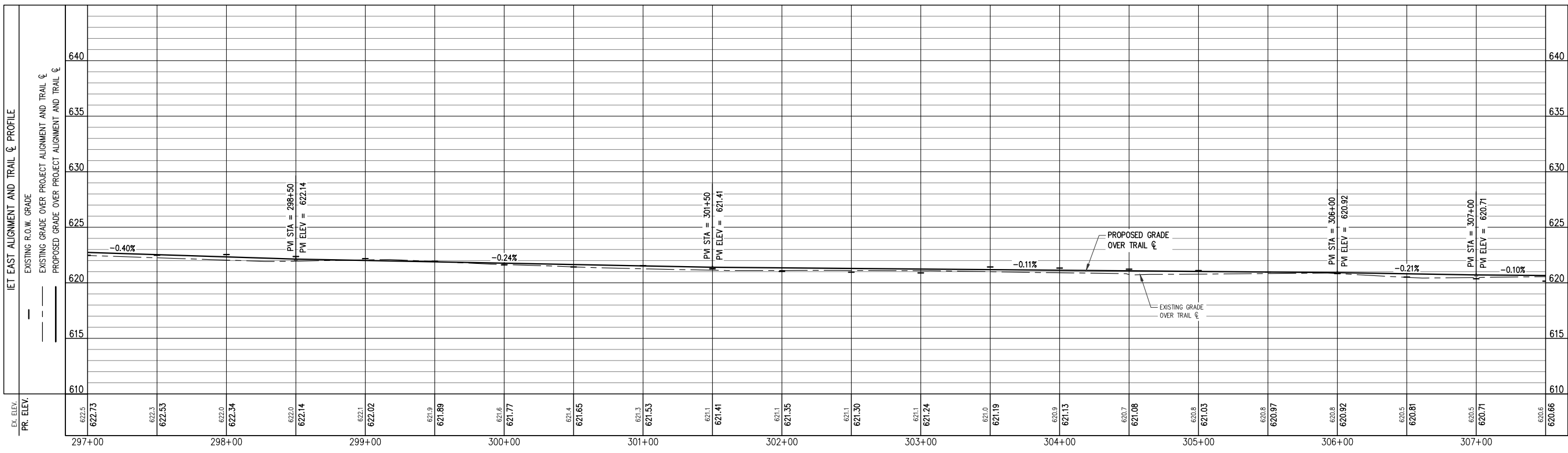
REV: _____
 SHT# 44 OF 46
 JOB No: 19C0114



••CAUTION••
FIBER OPTIC

••CAUTION••
HAZARDOUS
FLAMMABLE MATERIAL
UNDERGROUND

SHEET QUANTITIES		
DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta
Aggregate Base, 6 inch, Modified	1170	Syd
Aggregate Surface Cse, 2 1/2 inch, Modified	1170	Syd
Shared use Path, Grading	1050	Ft
Turf Establishment, Performance	10.5	Sta



PLAN DATE: SEPTEMBER 2019
PROJECT MGR: RAF
REVIEWER: TCL
SCALE: 1" = 40' HZ; 1" = 5' VT

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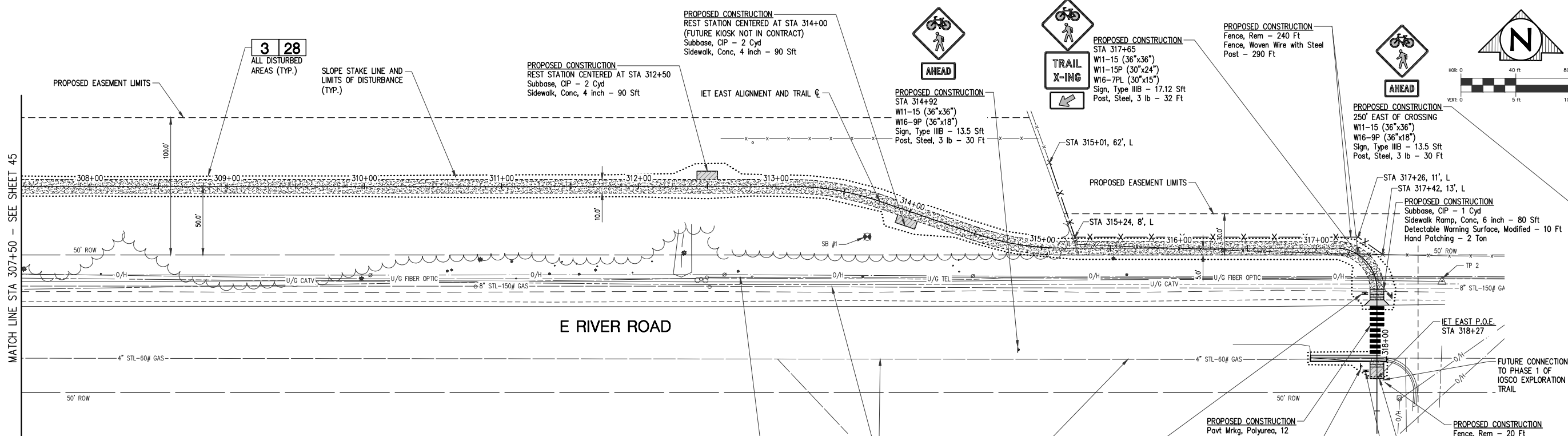
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IOSCO EXPLORATION TRAIL
STA 297+00 TO STA 307+50
PLAN AND PROFILE SHEET



PLAN SUBMITTALS AND CHANGES	
PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**	
DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

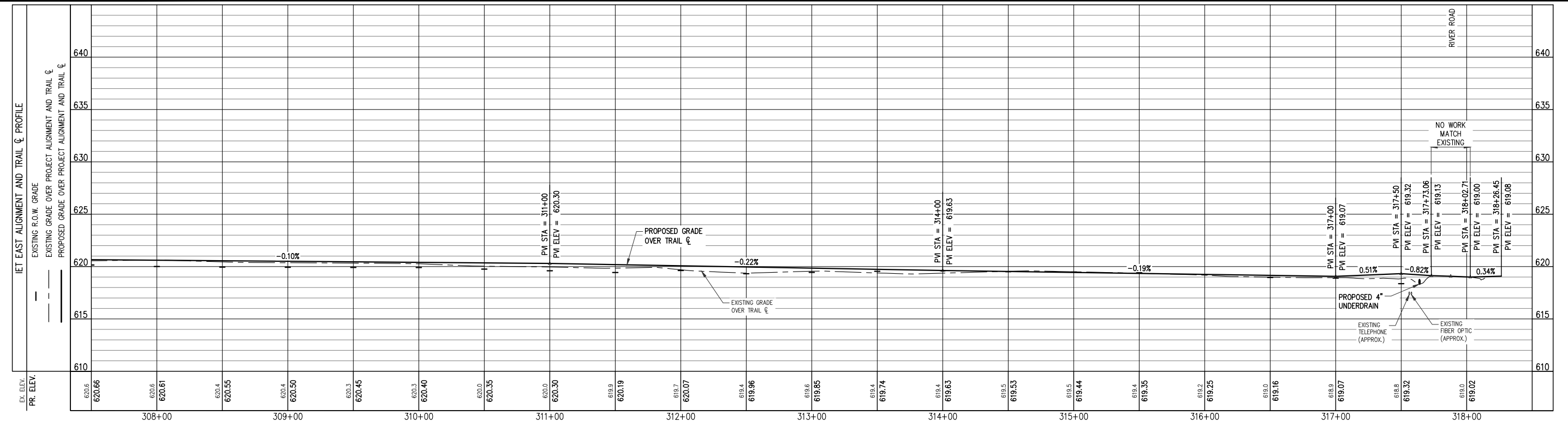
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SHT# 45 OF 46
JOB No: 19C0114

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SHEET QUANTITIES

DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS
Clearing, Special	10.5	Sta	Curb and Gutter, Conc, Det B2	44	Ft	Sign, Type III, Rem	1	Ea
Curb and Gutter, Rem	15	Ft	Curb Ramp Opening, Conc	12	Ft	Sign, Type IIIA	5	Sft
Fence, Rem	260	Ft	Sidewalk Ramp, Conc, 6 inch	210	Sft	Sign, Type IIIB	66	Sft
Pavt, Rem	20	Syd	Sidewalk, Conc, 4 inch	180	Sft	Post, Wood, Sign	2	Ea
Subbase, CIP	7	Cyd	Detectable Warning Surface, Modified	20	Ft	Pavt, Mrkg, Polyurea, 12 inch, Crosswalk	90	Ft
Aggregate Base, 6 inch, Modified	1125	Syd	Shared use Path, Grading	1048	Ft	Turf Establishment, Performance	10.5	Sta
Aggregate Surface Cse, 2 1/2 inch, Modified	1125	Syd	Fence, Woven Wire with Steel Post	290	Ft			
Hand Patching	5	Ton	Post, Steel, 3 lb	124	Ft			



PLAN SUBMITTALS AND CHANGES

DATE	DESCRIPTION
8/5/19	TEAM REVIEW
9-19-19	90% CLIENT SUBMITTAL

PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**

PLAN DATE: SEPTEMBER 2019
 PROJECT MGR: RAF
 REVIEWER: TCL
 SCALE: 1" = 40' HZ; 1" = 5' VT

ROWE PROFESSIONAL SERVICES COMPANY
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PREPARED FOR
CHARTER TOWNSHIP OF OSCODA
IOSCO EXPLORATION TRAIL
 STA 307+50 TO STA 318+27 (P.O.E.)
 PLAN AND PROFILE SHEET

REV: _____
 SHT# 46 OF 46
 JOB No: 19C0114

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