



Remediation Issues

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Remediation Issues

- **Difficult Site Review**
- **eQuote Process**
- **Site Closures**
 - **FDOT MOU Closures**
 - **CSX Railroad MOU Closures**



Difficult Site Review





Difficult Site Review

- **Evaluate selected technology**
 - **Traditional/innovative**
- **Closure options**
- **Free product recovery**
 - **Feasibility/cost effectiveness**
- **Resolve access issues**



What Makes A Site Difficult?

- **Access to contamination**
 - **Buildings/roadways**
- **Lithology**
- **Deep contamination**
- **High levels of contamination**
- **Large plume**
- **High cost**



Difficult Site Review

- **Review requested by Project Manager or team Engineer**
- **Review group includes**
 - **Team Project Manger, PE, and PG**
 - **Senior technical staff in Tallahassee**

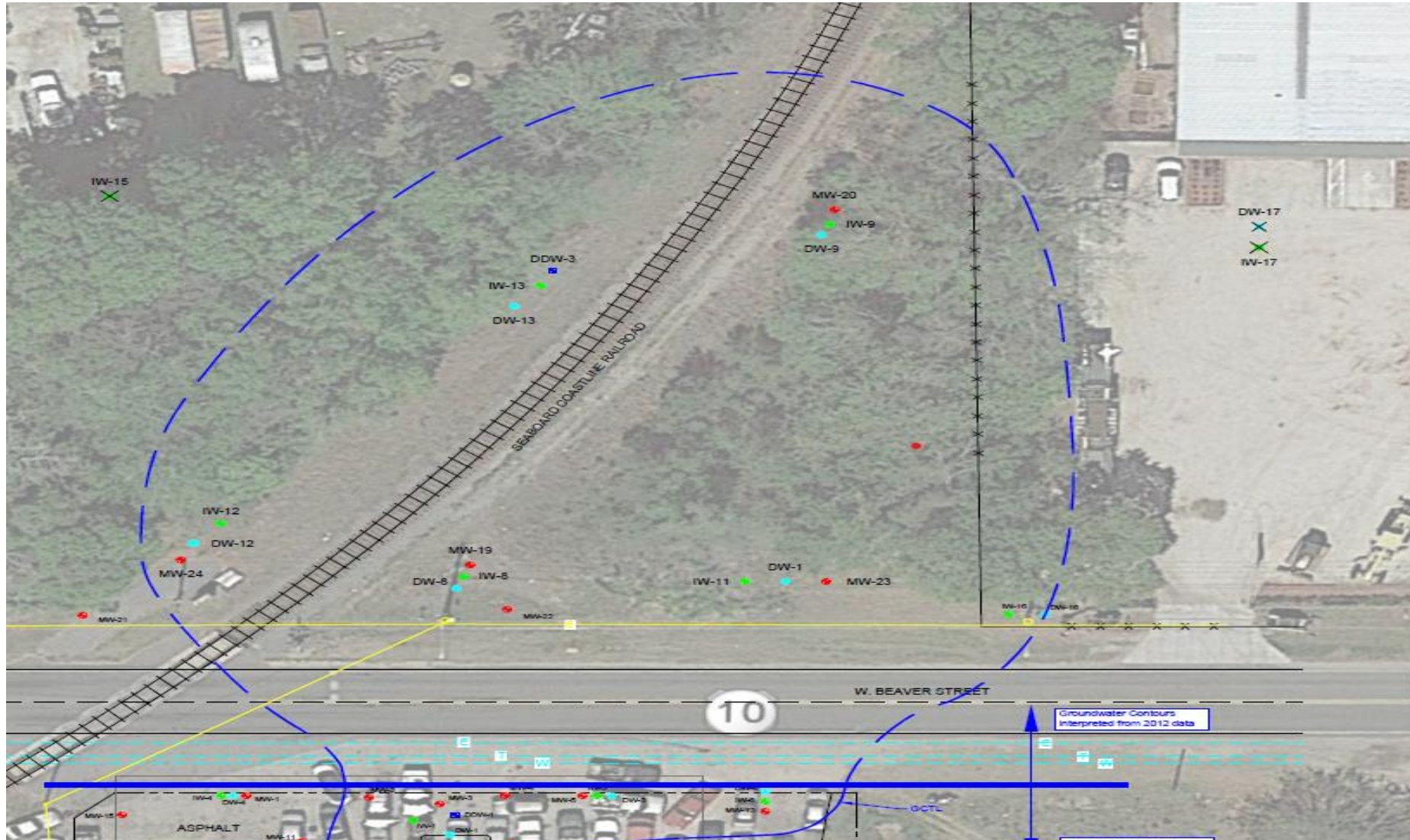


Difficult Site Review





Difficult Site Review





Difficult Site Review

- **Twenty sites reviewed**
- **Proposed technologies**
 - **Source removal**
 - **AS/SVE & Multi-phase**



Difficult Site Review Results

- **Additional information required - 5**
- **Scope expanded - 5**
- **Change in technology recommended - 3**
- **No major changes - 5**
- **Free product issues - 2**



eQuote Process



Sites For eQuote – Costs > \$325K

- **Source removal including:**
 - **Transport & disposal**
 - **Dewatering/treatment recovered water**
 - **Shoring**
 - **Backfill**
 - **Site restoration**
- **Remedial system construction with one quarter of operation & maintenance**



Sites For eQuote – Costs > \$325K

- **Remedial system construction**
 - **System installation**
 - **Treatment wells**
 - **Trenching**
 - **One quarter operation & maintenance**



eQuote Process

- **eQuote Groups Review:**
 - **Review Remedial Action Plan**
 - **Discuss potential issues with RAP**
 - **Includes Site Manager team/Local Program PE & PG**
 - **Scope of work (SOW), schedule of pay Items (SPI)**



eQuote Process

- **eQuote Specialist prepares eQuote:**
 - **Add RAP MOD for engineer of record**
 - **Mobilizations & per diem units are determined by bidder**
 - **Options for disposal methods and distances determined by bidder**
 - **Most reimbursable pay items changed to lump sum or unit rate**



eQuote Process

- **Change Orders:**
 - **Only allowed for unexpected circumstances, e.g., discovery of unknown tank or additional T&D volumes**
 - **Rates for pay items not in eQuotes must be negotiated**



eQuote Statistics

- **Purchase Orders Issued - 38**
- **Contractors - 15**
- **Source Removals - 25**
- **Remedial Systems - 11**
- **Site Restoration - 2**
- **Range: \$136,000 - \$2.8 million**
- **Average: \$369,521**
- **Average cost savings: \$292,361**



Sites For eQuote

- **Other scenarios for eQuote**
 - **Sites with funding caps**
 - **Site owner/responsible party may request eQuote**



Site Closures



Risk Management Options

- **Rule 62-780.680, F.A.C.**
- **RM0 I – Meet all “default” Cleanup Target Levels - everywhere**
 - “Clean closure”/no restrictions
- **RM0 II – Contamination remains on source property**
 - Typically requires Declaration of Restrictive Covenant (DRC)
 - Land use restriction to Commercial/Industrial
 - Engineering Controls can also be used
 - Limited groundwater plume
 - <1/4 acre, not beyond the property boundary
- **RM0 III – Contamination may remain on and off source property**
 - All closure strategies available, includes risk assessment



Allowable Costs For Program Sites

Florida Statute 376.3071(5)(b)4 F.S., Inland Protection Trust Fund Allows Payment

For:

Professional Land Survey

Title Search Report

Ownership and encumbrance report





Allowable Costs For Program Sites

Recording Fees

IC Restrictions are recorded in county public records where the restricted property is located

Engineering Control Design & Installation

Unless an engineering control already exists



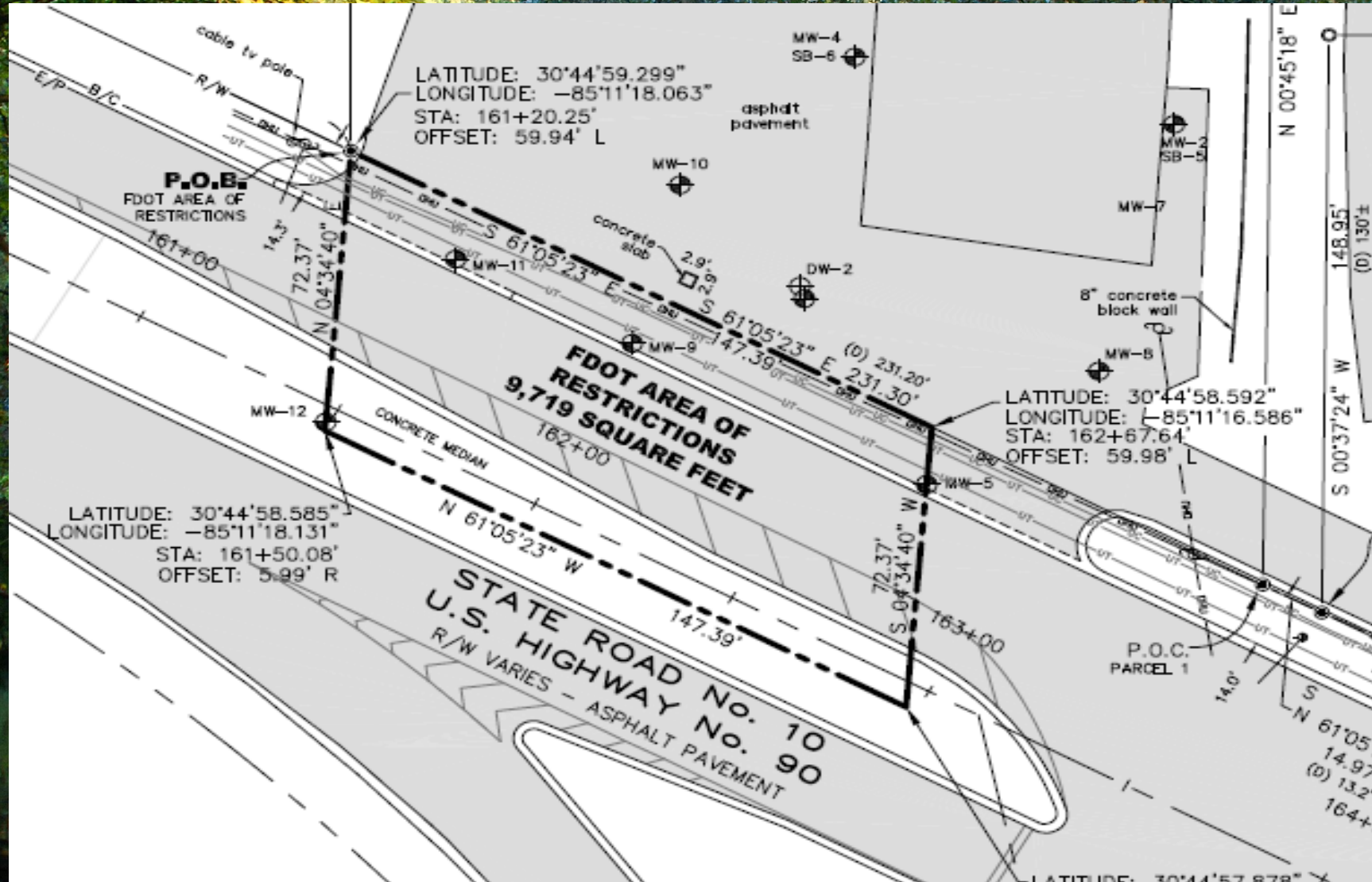


FDEP/FDOT MOU

- **Allows conditional closures for discharges with contamination in the FDOT's right of way (ROW)**
- **FDOT ROW "Map Note" used as an institutional control**
- **Takes advantage of the inherent "barriers to exposure" provided by the FDOT's management of the ROW**
 - **Physical barriers, i.e. road pavement, clean fill**
 - **Administrative barriers, i.e. FDOT's permitting process that is designed to control all activities in the ROW**
 - **No need for recording of restrictive covenant**

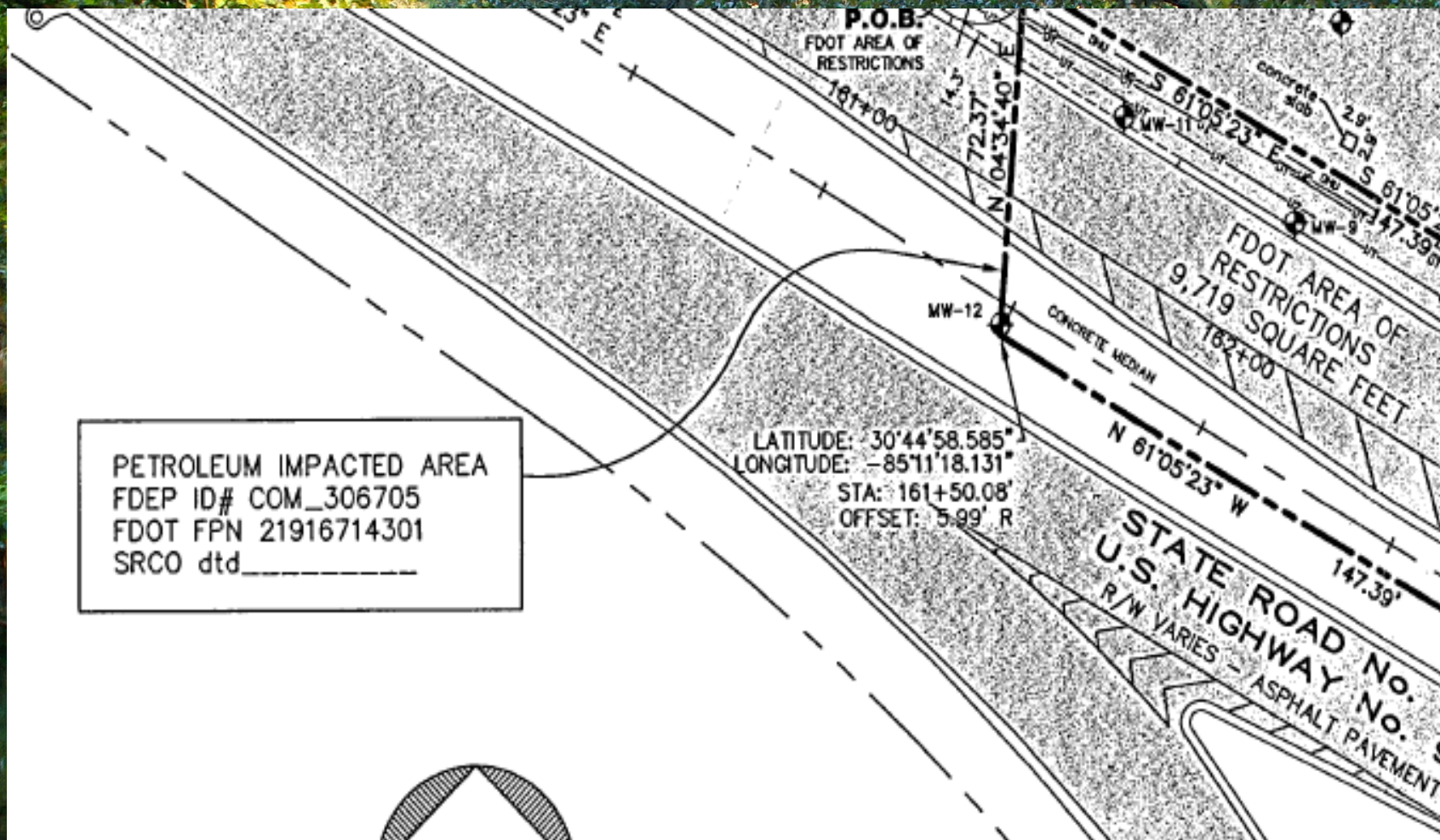


FDOT ROW Map





ROW Map Note





Key Things To Remember

- **A FDOT MOU closure may be used to close discharges where the source property is adjacent to FDOT ROW**
- **The source property must qualify for closure by:**
 - **Meeting RMO-I criteria, or,**
 - **RMO-II Establishment of institutional control (IC) or engineering control (EC) for groundwater and soil**



Key Things To Remember

- **The source property owner must sign an indemnification agreement with FDOT**
- **Closures using the FDOT MOU are considered RMO III Closures since the contamination is off-site**
- **Steps for FDOT/FDEP MOU closures are located in Institutional Controls Procedure Guidance - Attachment 32: Procedure For Use Of FDEP And FDOT MOU**



CSX/FDEP MOU

- **MOU Signed April 28, 2018**
- **Allows conditional closures for discharges with contamination on CSX property**
- **An Institutional Control is established by adding the “environmental site” to CSX’s database and GIS mapping system**
- **CSX MOU Review and Closure Procedures, Institutional Controls Procedure Guidance - Attachment 40**



CSX/FDEP MOU

- **FDEP confirms that:**
 - **The contaminants within the property are not a threat to human health, public safety or the environment**
 - **The contaminant plume is stable or shrinking and may naturally attenuate**
- **The CSX MOU establishes:**
 - **There will be no groundwater use on the property**
 - **Property is exclusively commercial or industrial**
 - **Dewatering requires a permit, per Rule 62-621.300, F.A.C.**



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